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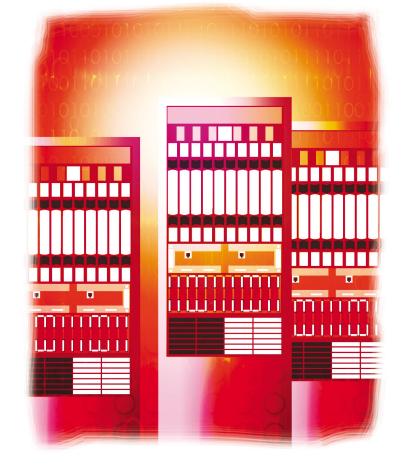# Data Center Environment Basics

Five Things To Know About Keeping Your IT Atmosphere Efficient

by Elizabeth Millard

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The complexity of a data center environment seems to grow with every new batch of appliances and "cutting-edge" technology, but there are some basics that seem to be a constant, no matter how configurations change. Here are the five things to keep in mind when making the most of your environment.

You're Only As Good As Your Power Allows

Think of it as a high school math problem: If data center x has y amount of power, how many machines can it run if each machine requires z amount of electricity? For data center managers, though, this question can be a daily challenge, particularly if higher management is requesting more storage, more bandwidth, and faster processing speed.

The answer to those types of mandates is usually bringing in additional equipment or buying efficient machines such as blade servers.

But electricity is not limitless, and even more importantly, each data center has to have a backup plan if power is knocked out because of a storm or other outage event. Many have generators that can kick in and prevent data loss, but if a center is relying on a huge amount of power coming in, it may not have enough generators to compensate. Look at your setup, experts note, and consider strategies such as offsite data storage and placing mission-critical equipment in its own area that a generator can power up quickly.

HVAC Requires Education, Not Just Awareness

In conjunction with power issues, cooling is another major area of data center environmental maintenance that's crucial for efficiency

Implementing Power Distribution

Lower Electricity Costs & Increase Data Center Efficiency

by Bruce Gain

• • •

MANAGING THE POWER REQUIREMENTS of a data center is one of the most critical tasks for any IT department, and its importance will only increase. According to the U.S. Environmental Protection Agency, data

centers' power consumption doubled from 2002 to 2006 and is expected to double again from 2006 to 2011. The EPA also reported data centers and servers in the U.S. consumed 61 billion kilowatt-hours of power in 2006. This represents 1.5% of all electricity use in the U.S., with costs totaling

$4.5 billion. On a more immediate level, energy prices are not likely to go down anytime soon, while more watts of electricity will be required to accommodate ever burgeoning network traffic, storage, and other demands on data center equipment.

"Electricity costs are skyrocketing, which is a big deal for data centers. If your home electricity bills go up from $45 a month to $60 a month, then it is no big deal since you just spend a few extra bucks," Joe Skorjanec, technology manager for Eaton (714/540-4229; www.eaton.com), says. "But when you have several hundred thousand dollars in electricity bills, then the magnitude is so much larger. Gaining 6% in efficiency may seem like a small percentage, but it is not when you consider the

> **Take a more proactive approach when it comes to how a data center consumes electricity by implementing a solid power distribution plan.**

In This ISSUE

COVER FOCUS

Top 5 Things To Know About Key Data Center Topics

When it comes to some of the biggest data center topics, what are the most important issues you need to be aware of so you can keep your enterprise ahead of the pack? We talked with experts to find out.

TECH & TRENDS

Planning & Implementing PDUs | 1

Given that power will increasingly represent one of the costliest components of a data center, it is in your interest to take a more proactive approach when it comes to how a data center consumes electricity by implementing a solid power distribution plan.

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In light of the diverse and fluid nature of green IT and the specialized knowledge outside traditional IT domains it entails, companies pursuing green initiatives are looking to consultants and service providers for help.

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Encryption: Advantages & Drawbacks | 27

Even though it makes a lot of sense, implementing encryption in the enterprise can have its drawbacks. By looking carefully at encryption's advantages and drawbacks, enterprises can weigh the options and make sound business decisions.

Product Releases | 17

■ **Dell** has released the new Energy Smart Vostro 410 PC for small businesses. ■ **Ensim** announced the Ensim Unify Password Manager version 2.5. ■ **Intellitactics** introduced SAFE XL, a new edition to the SAFE product line of security appliances. ■ **MX Logic** is offering three new managed-security service bundles. ■ **Network Instruments** has introduced the GigaStor 2TE. ■ **Power Distribution** introduced its latest Rack Distribution System product line. ■ The Savvio 10K.3 hard drive, a high-capacity, small-form factor (2.5 inches) enterprise drive, is now available from **Seagate**. ■ **SMC Networks** has recently unveiled its SMCBR21VPN Barricade VPN Router.

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STORAGE   JUNE 13, 2008

Backup, Recovery & Disaster Protection

Sonasoft's SonaSafe Suite Beefs Up The Defense

PROTECTING DATA IS ONE of the most important things a company can do. Sonasoft's newest version of its SonaSafe Suite for Microsoft Exchange, SQL, and Windows Servers improves upon its ability to facilitate data backup and recovery.

SonaSafe Suite is designed for high availability by continuously updating data that was retrieved from the primary system to the redundant, standby servers. The redundant servers themselves are designed to immediately take over for the primary system in the event of a disaster.

SonaSafe Suite supports SQL 7.0, 2000, and 2005; Exchange 2000, 2003, and 2007; and Windows NT/2000/2003/XP. Back-up and recovery options are also available via a bootable CD and can be performed on systems such as VMware and Microsoft Virtual Server. The suite is controlled through a Web-based interface.

New features of the suite include dynamic mailbox backup, which makes larger amounts of mailbox storage possible on an Exchange server. One complete backup is made, so only incremental backups need to be performed in the future, thus eliminating costs. Data retrieval is possible with a few mouse clicks.

Other new features include customizable ports and enhanced replication and recovery capabilities. Customers can now define and open ports for backup and restore functions, which is more secure than doing so on more commonly used ports. File level backup and recovery options are also increased.

Sonasoft SonaSafe Suite

SonaSafe Application: $1,995
SQL/Exchange/File Systems Agent: $995

Provides backup and restore functionality for Microsoft SQL, Exchange, and Windows servers

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PHYSICAL INFRASTRUCTURE   JUNE 13, 2008

Industrial PoE Splitter

Advantech's EKI-2701PSI Provides Power To Difficult Situations

PoE (POWER OVER ETHERNET; also known as IEEE 802.3af) has proven itself in commercial and enterprise applications over the past several years. Using the unused wires in a 10/100BaseT cable, or by overlaying power on the data connections, PoE supplies 15.4W of power at 48VDC.

PoE is useful for powering network devices and equipment where it is inconvenient, expensive, or infeasible to supply power separately. Connected between a standard Ethernet device and a PoE-powered connection, the Advantech EKI-2701PSI operates as a splitter, separating the PoE connection into a standard RJ45 Ethernet port and a removable screw terminal block capable of supplying nearly 13W at 24VDC.

Packaged in a thin DIN-rail mount chassis, the Advantech EKI-2701PSI is ideal where panel space is limited. It supports both standard 10/100BaseT and Gigabit 1000BaseT connections. It is also ruggedized for demanding industrial applications, with 4,000 VDC Ethernet ESD protection, power line surge (EFT) protection of 3,000 VDC, power isolation, and output power short circuit protection. For maximum uptime in unattended and remote locations, the EKI-2701PSI features an extended operating temperature range of -40 to 75° C.

The EKI-2701PSI splitter is an ideal means to gain the benefits of PoE with standard Ethernet devices in harsh industrial environments. For applications with two or more devices requiring a PoE power source, the EKI-2525P 5-port industrial Ethernet switch is a great match.

Advantech EKI-2701PSI

Separates the PoE connection into a standard Ethernet port and a removable screw terminal block

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ADVANTECH eAutomation

SECURITY   JUNE 13, 2008

Core-To-Edge Detection

Endace's NinjaProbe Adds Snort IDS Support & Data Mining Capabilities

MONITORING THE security of a network requires network administrators to make sense of a constant flow of information from a variety of fronts. Malicious threats and anomalies of all kinds must be recognized and dealt with handily, and administrators must rely on their equipment to help them keep the network safe. All of this puts more pressure on NIDS (network intrusion detection systems) to do their job well.

Endace has improved on its NIDS appliance, NinjaProbe, with the addition of 10G Snort IDS, Applied Watch Command Center Agent, and data mining capabilities. NinjaProbe is powered by Endace's DAG (Data Acquisition and Generation) technology. The new features are open-source and facilitate high-speed packet capture, intrusion detection, and analysis. They are designed to be easily deployable, powerful, and secure.

Endace's acquisition of Applied Watch allows NinjaProbe to integrate well with Snort IDS' management tools. NinjaProbe captures all incoming traffic to disk, from the edge of the network to the core, so that when a rule is triggered, administrators can address the problem and mine data concerning the event. And because the platform can operate on segments up to 10Gbps with continuous indexed rotary storage, analysts can collect and study data both before and after an alert.

The appliance's features can be managed remotely, including for Snort rule definition, download, and alerting, as well as data mining and platform configuration. Other features include traffic filtering and Netflow record generation, which facilitate data capture, performance management, traffic monitoring, and electronic surveillance to meet the full range of requirements.

Endace NinjaProbe

$28,825

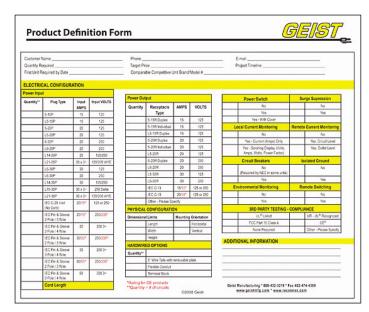Provides core-to-edge detection and data mining for the network

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Customized Power & Monitoring

Geist Goes Where Others Fear To Tread

Geist Manufacturing's Product Definition Form lets you customize product configurations and other options.

WHEN YOU THINK OF customized power and monitoring products, what comes to mind? Difficulty in product definition? Numerous engineering delays? Long lead times? Outrageous prices? Don't throw in the towel. Geist makes customization convenient.

Customization is part of our standard way of doing business. Geist has built itself around the ability to serve customers, even when they want something out of the ordinary. Whether you need custom chassis dimensions, particular software programming, specific wiring configurations, or uncommon components, it's not a problem. Where other companies turn away from customization, a substantial portion of Geist's business is custom orders.

Unlimited Options

Geist offers more than 1,000 model numbers made up of numerous product configurations and options. The Product Wizard at www.geistmfg.com can help identify the model that meets your spec. However, if a standard unit does not fit your application, don't settle.

Geist specializes in 15- to 120-amp PDUs, including single-phase, three-phase, IEC, and NEMA configurations. Your plug type choices include straight-blade, twist-lock, California style, or a pin-and-sleeve connector. You may also design your device to incorporate environmental, current, circuit and outlet level monitoring with local and/or remote display options. From multiple circuits and cord length to receptacle type and quantity, Geist puts your needs first.

The Customization Process

Calls to Geist are answered by a live person. Without delay, you are directed to your personal customer service representative, and the person you speak to today is the same person that you will work with every time you call. Your CSR will walk you through our Product Definition Form and submit your configuration for quote. Typically you will receive your custom project quote from Geist before other competitors can even agree on the product definition.

Design for success. Geist's in-house engineering department includes a group of mechanical, electrical, board layout, and software specialists whose sole responsibility is to design custom products. From concept to prototype delivery, this team reduces your custom development time from months to weeks.

Custom is just part of the regular flow. Whether the project is standard or custom, all Geist products are built to order and made in the United States. Versatile work centers and highly trained personnel give manufacturing the ability to react immediately to any customization project, without affecting the regular production routine. Geist utilizes lean manufacturing to evolve from a mind set of mass production to one of mass customization.

Quality assured. Geist uses a one-piece flow and in-process quality inspection to guarantee that every unit is examined for functionality and visual defects prior to packaging. Whether building a standard or custom product, this superior level of quality and reliability comes with every unit we make.

Geist operates a state-of-the-art testing lab, supervised by an in-house conformance engineer. By having this facility within Geist, we are able to quickly ensure regulatory compliance for all of our products, including customized ones.

Continuous improvement. In the third quarter of 2008, Geist will launch its metal works division. This new operation includes fabricating and powder coating equipment, enabling Geist to streamline chassis production as an internal function. The new metal works capabilities will further enhance Geist's rapid production response by minimizing restrictions due to suppliers' schedules.

Geist has established a 60-year reputation for providing personalized customer service, hassle-free product design, and fast-turn production for power and monitoring solutions.

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Wireless Presentations

ATEN's KE8220 Eliminates Cables, Upgrades Existing Projectors & Takes Your Meetings To The Next Level

CABLE-SWAPPING AND UPLOADING presentation data located on remote computers are serious drags in any professional meeting. With the KE8220 Virtual VNC Console, ATEN revolutionizes the meeting room with a tool that not only allows multiple local presenters to wirelessly transmit their presentation data from their notebooks to a projector or display, but enables remote users to push their data in real time via LAN, wired or wireless, to the ATEN KE8220.

This wireless presentation system from ATEN's ALTUSEN product line upgrades existing projectors and generates a cable-free conference environment for multiple presentations. The KE8220 also allows remote access of PowerPoint presentations, images, and other applications for real-time display on a projector, monitor, or other display device with standard VGA connectors. With the Wireless-G USB Adapter, the KE8220 transmits data over a secure high-speed 802.11b/g wireless connection at speeds of up to 54Mbps with 64-, 128-, and 256-bit WEP encryption.

Users can download AltusenVNC software from the KE8220's embedded Web server, allowing anyone in the meeting to switch focus between computers seamlessly with a mouse-click.

This plug-and-play device is compatible with Windows 2000/XP/2003/Vista. The KE8220 system features:

• 802.11 b/g support for wireless presentation without cable swapping
• Display computer's screen on projector via network
• Real-time display of PowerPoint presentations, images, and applications
• Seamlessly switch focus between computers with a single mouse-click
• Supports high-quality display resolutions up to 1,280 x 1,024 at 60Hz
• Ad-Hoc mode with DHCP server support enables a direct wireless connection between the KE8220 and a laptop
• Automatic discovery and multilingual UI support simplifies process
• Supports static and automatic (DHCP) network configuration

ATEN KE8220 Virtual VNC Console

Presentations unleashed: enables wireless presentations without cable swapping

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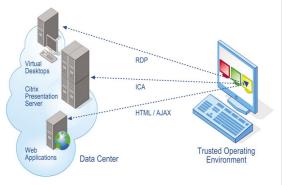
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Alleviate Endpoint Virtualization Stress

Neocleus' Trusted Edge Provides Simple, Secure Endpoint Solution

AS PROFESSIONALS BECOME more mobile, there is an increased need to keep these employees securely in touch with company resources. But maintaining a virtual connection that is both secure and reliable can be difficult—especially because organizations cannot control the security of an endpoint operated by a customer or employee.

For this reason, Neocleus has launched Trusted Edge, which is designed to provide organizations with a program that connects customers and employees to corporate resources from anywhere in the world, regardless of the state of security. Trusted Edge will address issues that arise when managing and safely deploying applications, data, and services.

Trusted Edge implements a new Type 1, bare-metal hypervisor and a separate virtual trusted environment outside of Windows provided by new security plan and IT management framework. When putting Trusted Edge into operation, desktops will not need to be rebuilt, decreasing end-user downtime and costs. Trusted Edge can run other Windows-based applications upon customer demand and supports RDP, Citrix ICA, and Web interfaces. Authentication and configuration controls offer an easily managed virtual

endpoint environment, creating a win-win situation for both IT personnel and users.

Trusted Edge not only provides customers and employees with the flexibility of accessing company resources from anywhere, it also has continuously operating real-time remote confirmation of virtualized environment reliability.

Neocleus Trusted Edge

Base-level user licenses start at $150 per user

Helps IT personnel, customers, and employees manage issues with endpoint virtualization

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MarketPlace ▲▼ NEWS

▌ Brocade Settles Backdating Lawsuit

BROCADE ANNOUNCED that it has settled a class-action lawsuit filed against it in May 2005 for backdating stock options. In the settlement, Brocade agreed to pay $160 million to plaintiffs in exchange for a dismissal of claims. Brocade's former CEO Gregory L. Reyes and Personnel Director Stephanie Jensen were both convicted of federal charges concerning the case; both were fined and sentenced to time in prison. Brocade is one of more than 200 companies entrenched in legal investigation over illegal backdating, a practice which is legal if properly accounted for.

▌ Korea Fair Trade Commission Fines Intel

THE KFTC (Korea Fair Trade Commission) says Intel has abused its dominant position in the market for microprocessors, and the commission has fined the chipmaker $25.4 million. The KFTC says that between 2002 and 2005, Intel promised rebates to computer makers in South Korea, including Samsung Electronics and Trigem Computer, if those companies said they would not buy chips from Advanced Micro Devices, Intel's main competitor. The commission says that practice violates fair trade rules. Intel disagrees with the commission's ruling, saying it doesn't think the KFTC gave full consideration to the evidence, and plans to appeal it to the high court in Seoul.

▌ Gartner Raises 2008 Chip Forecast

NOTING GAINS IN THE MEMORY CHIP market and growth in sales of personal navigation devices, Gartner raised its forecast for the semiconductor industry's 2008 global revenue. Gartner expects chip revenue to increase by 4.6% this year to $287 billion, up from its original estimate of 3.4%, an indication that the slowing global economy has not had the expected significant negative effect on electronics sales. The market is expected to remain steady in the second quarter, though analysts remain wary of the effect of rising oil costs on consumer spending.

▌ Mozilla Firefox May Reach 20% Market Share

NET APPLICATIONS, A WEB metrics company, reported that Mozilla's Firefox Web browser gained 0.6% last month to capture 18.4% of the browser market share. The increase was the largest one-month gain for Firefox since March of last year and puts the open-source browser on track to reach its goal of breaking the 20% market share mark. Among the other browsers, Microsoft's Internet Explorer lost more than a percentage point in market share to land at 73.8%, while Apple's Safari gained 0.5% for 6.3% share and Opera Software's Opera browser gained 0.02% for 0.7% share.

▌ Bank Loses Tapes With Personal Info On 4.5 Million

THE BANK OF NEW YORK Mellon announced that third-party vendor Archive America lost some of the bank's unencrypted tapes containing personal data on 4.5 million of its customers. Archive America was transporting the tapes to an offsite location on Feb. 27 when the tapes went missing. The lost tapes contain names, Social Security numbers, birth dates, and other personal data on customers of BNY Mellon and the People's United Bank in Bridgeport, Conn. Connecticut Attorney General Richard Blumenthal blasted the bank for not notifying customers until three months after the incident.

▌ Student Visa Extension Challenged

SEVERAL GROUPS HAVE JOINED forces to file suit to challenge the decision by the Bush administration that extended the amount of time foreign nationals can work in the United States using a student visa. Until the decision, foreign nationals were allowed to stay and work in the United States for one year; they can now stay in the country for up to 29 months to allow their employers extra time to apply for and receive an H-1B visa. The lawsuit was filed by the Immigration Reform Law Institute, The Programmers Guild, the American Engineering Association, and several other groups.

▌ ID Theft At UC Irvine

UNIVERSITY OF CALIFORNIA at Irvine graduate and medical students have been the victims of identity theft crimes related to their health insurance program through United Healthcare Services, law enforcement officials have discovered. A breach at the insurance carrier has led to criminals using graduate students' Social Security numbers to file false tax returns in the victims' names and then collect the tax refunds. Although United Healthcare is one of the nation's largest healthcare service providers, it appears that only the 1,132 graduate students at UC Irvine have been affected by the breach, with 155 of those students being victims of the ID theft scam.

▌ Nanotubes Could Pose Cancer Risk

SOME CARBON NANOTUBES can cause cancer risks, according to a study by the Project on Emerging Nanotechnologies. The study says that, if inhaled in sufficient quantities, carbon nanotubes could be as harmful as asbestos. Researchers agree that much more research needs to be done to find out if carbon nanotubes can be inhaled into human lungs the way asbestos fibers are inhaled. However, initial studies showed that in mice, long, thin carbon nanotubes showed the same effects as asbestos; short or curly nanotubes did not act like asbestos. Nanotubes are commonly found in electronics and are being developed for use in batteries and medicines.

▌ Average Price Of Mobile Devices Up

THE AVERAGE PRICE USERS are paying for wireless handsets has increased more than $9 during the past six months, according to a new study by J.D. Power and Associates. The average purchase price is now $101. Researchers credit much of the increase to the increased popularity of smartphones, which account for about 6.3% of all cell phones sold. A year ago, smartphones accounted for about 1.7% of the market. Compared to cell phones, which have an average selling price of $58, the average selling price of smartphones is much higher, at $208. The study also showed that users are keeping their cell phones longer—an average of 17.7 months, compared to 16.6 months in 2006.

▌ Wireless Broadband Brings Productivity Gains

PRODUCTIVITY GAINS CREATED by deploying and using wireless broadband services will generate about $860 billion in additional gross domestic product during the next decade, according to a new report conducted by Ovum for the Cellular Telecommunications Industry Association. The Ovum report shows that, in 2005, 25% of businesses used wireless broadband; that figure is expected to increase to 83% by 2016. Most economic benefits will come in the form of resource and inventory management and documentation, healthcare efficiency enhancements, field service automation, inventory loss reduction, sales force automation, and replacement of desk phones with mobile wireless devices, according to the report.

▌ Notification Laws Not Lowering ID Theft

RESEARCHERS AT CARNEGIE MELLON have reported that despite efforts by 43 U.S. states to institute legislation requiring data breach notification, the laws have not cut down on identity theft. In examining the FTC's database of identity theft reports on a month-to-month basis, the researchers did not see any significant change in the number of reported cases of identity theft after the legislation went into effect. Part of the reason, the team says, could be because customers ignore breach notification letters; the team also believes that firms are not doing enough to protect their data.

▌ Broadcom Co-Founder Indicted

BROADCOM'S CO-FOUNDER, Henry Nicholas, has been indicted for possession and distribution of drugs and on charges of stock option backdating. According to the indictment, Nicholas has maintained a warehouse for more than nine years in which he stored ecstasy, methamphetamines, and cocaine. Court documents also allege that Nicholas has put ecstasy in clients' and executives' drinks and provided drugs to hired prostitutes and escorts. Nicholas was also involved in backdating arrangements that resulted in the company filing an addition of $2.2 billion to its financial results, the largest backdating-related financial restatement in U.S. history.

WATCH THE STOCKS

This information provides a quick glimpse of current and historical stock prices and trends for 14 major companies in the technology market.

Company	Symbol	Year Ago	May 30 $	June 6 $	% change from previous week
Computer Associates	CA	$25.79	$26.54	$24.94	▼ 6.03%
Cisco Systems	CSCO	$26.60	$26.72	$26.54	▼ 0.67%
Dell	DELL	$27.35	$23.06	$23.74	▲ 2.95%
Electronic Data Systems	EDS	$28.62	$24.49	$24.45	▼ 0.16%
Google	GOOG	$518.25	$585.80	$567	▲ 3.21%
HP	HPQ	$46.03	$47.06	$47.63	▲ 1.21%
IBM	IBM	$102.41	$129.43	$124.94	▼ 3.47%
Intel	INTC	$21.49	$23.18	$22.90	▼ 1.21%
McAfee	MFE	$35.41	$36.25	$36.70	▲ 1.24%
Microsoft	MSFT	$30.29	$28.32	$27.49	▼ 2.93%
Oracle	ORCL	$19.35	$22.84	$22.46	▼ 1.66%
Red Hat Software	RHT	$24.17	$24.36	$22.76	▼ 6.57%
Sun Microsystems	JAVA	$5.02	$12.95	$12.31	▼ 4.94%
Symantec	SYMC	$19.98	$21.73	$20.21	▼ 6.99%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions.

PRODUCTS / *AT WORK*

Automated Reboot Management Software

Law Firm Saves Time With WM Software's ShutdownPlus Rolling Restart

by Sue Hildreth

• • •

IN A LARGE DATA CENTER, even routine tasks such as patch upgrades or ordinary reboots of the servers can eat up a lot of time. At Sullivan & Cromwell, a legal firm based in New York City, the IT department reboots all of the company's 25 servers, in nine different offices, once each week to ensure good performance. It also reboots them after the monthly patch update.

Rebooting so many servers manually, server by server, used to take the staff days to do, says Peter Pagan, Citrix administrator at Sullivan & Cromwell.

Much of that time is consumed by checking the server logs to see which servers are free and which ones still have users on them. Because most of the company's computer users are lawyers who don't like to be interrupted for server maintenance, Pagan says his firm avoids rebooting or shutting down any server that is in use.

"With Citrix, the way we used to do it is to wait until everyone logged off before rebooting. So if there were two servers in an office, we would do one today and the other tomorrow," says Pagan.

Smoother Reboots

When the company began an upgrade to Citrix Presentation Server 4.0 in 2006, it also decided to implement an automated solution for server reboots. It selected ShutdownPlus Rolling Restart from WM Software (www.wmsoftware.com), based in Brunswick, Ohio.

"We were adding servers at the time and felt it was time to think of a better method for rebooting. The old way was taking too much time," says Pagan.

Rolling Restart automatically logs off users and restarts terminal servers on a round-robin schedule, by following a hub/spoke model. One server is the controller (hub), which restarts all the member

(spoke) servers. Each member server is restarted, in succession, from the controller server. ShutdownPlus Rolling Restart runs on all versions of Microsoft Windows Server operating systems, including Windows Server 2003, Windows Server 2000, and Windows NT4 Terminal Server Edition. It is fully compatible with third-party software from Citrix, Tarantella, and Jetro and is supported under VMware for virtual server environments.

Today, Pagan can now specify when and under what conditions the various servers should be rebooted. But he does this only once, when configuring a new implementation of Rolling Restart. "It's very easy to use," he says. "We log onto the Citrix server remotely, via RDB or any other type of session, and launch the Rolling Restart console. Once you configure it in the console, it's done."

Because everything is preconfigured, rebooting does not require the presence of an IT staff member. That enables Pagan to

schedule the reboots for weekends and late at night, when few, if any, employees are working. However, if the Rolling Restart software does find users logged on to a server, it simply skips that server and tries again later. To prevent new users from logging on before the next retry, however, it will disable the logon mechanism.

The Rolling Restart application can be implemented on one or several master servers. If all of the servers are to be rebooted at about the same time, in round-robin fashion, then only one master server is necessary.

Handling Complications

However, at Sullivan & Cromwell, several of the offices are in different time zones, making a standardized reboot schedule difficult. To deal with this, Pagan set up one master server in each branch office. That master controls the rebooting of one or more subordinate servers, as well as itself. The master server reboots itself after all of the other servers are done. If it can't reboot a server after multiple tries, however, it will eventually give up and reboot itself. In that case, it will also log the failures and alert the IT department in the morning. IT can view the logs to see which servers rebooted and which need additional attention.

"We check the logs to see if any server didn't reboot and the status of the servers," says Pagan.

Rolling Restart also provides an automated log-off feature that forces users to close documents and get off a server that is slated for rebooting. However, Sullivan & Cromwell does not use the automated log-off feature, as most of its users are attorneys engaged in critical projects, and a forced log-off process would be counterproductive.

Rolling Restart is not the only product that WM Software makes for automating the shutdown and rebooting of servers.

Depending on an organization's infrastructure and needs, it may also want to consider ShutdownPlus TSE (Terminal Server Edition) or ShutdownPlus Green.

ShutdownPlus TSE enables IT departments to schedule the shutdown of terminal servers and restart them. It also has a forced log-off feature for when IT needs to free up a server quickly. ShutdownPlus Green is ideal for desktop environments, to ensure that energy is not wasted by users leaving their PCs on all weekend and overnight.

Another product WM Software offers is the Relevos Terminal Server Edition, which controls the CPU and memory resources on Windows terminal servers. It focuses on improving performance and response times by monitoring processes and users, identifying those that consume excessive CPU and memory resources. If it identifies a heavy user, it can throttle back the percentage of CPU allotted to that user or process and also can manipulate the operating system's internal scheduler to balance the priority given to threads and processes.

A Look Ahead

Pagan is looking forward to later this year, when he expects to upgrade to the latest version of Rolling Restart, version 8. According to Pagan, this next version will provide a master console with views of all of the servers using Rolling Restart and the ability to schedule them from the central console.

"It's been a good tool for us," says Pagan. "The challenge that Rolling Restart has helped us to overcome is dealing with the frequent rebooting of servers without having any downtime for users or user interruptions." P

> **Rolling Restart automatically logs off users and restarts terminal servers on a round-robin schedule. One server is the controller, which restarts all the member servers.**

Ethernet Converter

Transition Networks GFEB Series Provides Easy Integration

AS A COMPANY GROWS, the need for flexibility and functionality increases, and so does the need for products that will accompany the growth and change. In the past, some Ethernet converters haven't had enough ports or haven't been cost-effective. Transition Networks has set out to solve this problem with the new GFEB series of 10/100/1000 Ethernet converters.

GFEB series products provide an easy way for companies to integrate legacy

10/100 UTP devices into a Gigabit Ethernet fiber network. Also, network administrators have new enhanced

features that increase functionality and network management capabilities.

The new GFEB-120 series of 10/100/1000Base-T to 1000Base-X Ethernet copper-to-fiber media converters replaces Transition's GFEB-100 series of media converters. With the new product line, customers benefit from new features such as bandwidth allocation, virtual cable test on UTP port, IEEE 802.1q VLAN tagging and double tagging (Q in Q), IEEE 802.1P QoS, IPv4 Tos/DiffServ, IPv6 traffic class, port-based VLAN to allow unidirectional transmission, RMON counters for each port, Digital Diagnostic Monitoring interface, and the ability to remotely update firmware.

These new converters are fully compatible with the previous models and also

include those features found on the GFEB-100 series, including AutoCross, AutoNegotiation (both UTP and fiber ports), Link Pass Through, Pause, Automatic Link Restoration, and switch-selectable speeds.

On-Demand Email Archiving

Fortiva Offers An All-Inclusive Email Archiving Solution

The Fortiva Archiving Suite allows you to easily search all archived messages, including attachments, right from Outlook or any web browser

THE MAJORITY OF a company's business-critical data is stored in email; data that can impact revenue, business decisions, corporate reputations, and end-user productivity. With all this at stake, businesses need to ensure that email is securely stored and easily accessed.

Fortiva Archiving Suite gives businesses a secure way to store and access an unlimited amount of historical email in real time without overloading the Exchange server. Fortiva also offers full preparation for legal discovery and provides easy compliance with regulatory rules. The policy-driven system also ensures consistent retention.

Fortiva Archiving Suite automatically captures and indexes all internal and external communications for redundant storage offsite. Users can easily access data within Outlook or a Web browser with guaranteed search performance, resulting in less need to store historical data within the mail server. Fortiva also guarantees data privacy through its DoubleBlind Encryption technology.

As a SaaS solution, Fortiva can be up and running in days, with no up-front capital costs and minimal planning. Fortiva takes care of everything from storage to security, so the archive can be easily managed by existing messaging staff.

Fortiva Archiving Suite

Starts at $1.01 per user, per month for 1,000 users

Email archiving system that lets companies manage their storage, comply with federal regulations, and meet eDiscovery requests
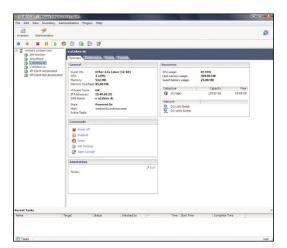
(866) 366-3668

www.fortiva.com

NX-9000 Sets The Standard For Scalability

Industry's First Gigabit WAN Acceleration Appliance

SILVER PEAK SYSTEMS' NX-9000 is the newest member of the company's NX family of appliances. The NX-9000 is the industry's first Gigabit WAN acceleration product, raising the bar for WAN performance and scale.

The NX-9000 supports up to 4Gbps of bidirectional LAN-side traffic and 1Gbps of bidirectional WAN-side traffic, with 8TB of local data store available for WAN deduplication. The newest Silver Peak appliance delivers up to 10 times the real-time throughput of competitive offerings.

The NX-9000 also includes two 10Gbps interfaces and four 1Gbps interfaces with EtherChannel bonding for physical connectivity between Silver Peak appliances and network elements, which is required for deployment in data center environments. As more hosts turn to multi-Gbps interfaces, the NX-9000 has the capacity required to support the corresponding growth in data volumes.

The NX-9000 is ideal for high-volume data environments and supports more than 256,000 simultaneous TCP flows. It optimizes all enterprise applications, including TCP traffic, real-time UDP traffic, latency sensitive traffic, and applications with dynamic data formats. Plus, NX appliances ensure that data is always secure, at rest and across the WAN.

The NX-9000 utilizes the following advanced optimization technologies to improve WAN bandwidth efficiency and accelerate application performance:
- Network Memory: Works on latency sensitive traffic and both TCP and non-TCP applications.
- Network Acceleration: Employs techniques that minimize latency caused by TCP and other chatty protocols.
- Network Integrity: Silver Peak is the only WAN optimization vendor to address lost and out-of-order packets in real time using adaptive FEC (Forward Error Correction) and POC (Packet Order Correction).

Silver Peak NX-9000

Starts at $259,995

Gigabit WAN acceleration product

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www.silver-peak.com

Accelerate Applications

Certeon's aCelera Boosts Virtual Efficiency

With the ability to run on any standard x86 system, aCelera Virtual Appliance software can share resources with the rest of your computing infrastructure.

WITH CERTEON'S ACELERA Virtual Appliance software, you can apply the advantages of virtualization to application acceleration without a reduction in application response time. The aCelera Virtual Appliance software delivers up to a 95% reduction in application response time for applications being accessed across the WAN. The software runs on standard x86 hardware in one or more virtual machines, so companies can mix and match application acceleration solutions for virtualized and nonvirtualized environments.

aCelera Virtual Appliances accelerate all network traffic and are optimized to accelerate remote access to specific applications, including Microsoft Office,

Microsoft Office SharePoint Server, EMC Documentum eRoom, and UGS Solid Edge. The Certeon aCelera software provides centralized provisioning and is integrated with VMware Virtual Center to enable IT managers to allocate and manage app performance resources wherever needed. This flexibility helps avoid the need for specialized devices at each end of a WAN connection. By adding more virtual machines, IT staff can increase the acceleration capacity as much as needed for specific times or days when application traffic is heavy.

IT managers can reduce their overheard costs by downloading and deploying the aCelera Virtual Appliance software for remote users to help reduce the amount of dedicated hardware in data centers and remote offices.

Certeon aCelera Virtual Appliance Software

Starts at $2,495

Allows you to accelerate application access without dedicated hardware

(781) 425-5200

www.certeon.com

Remotely Deploy Linux & Windows Systems

LinMin Bare Metal Provisioning Makes It Easy

LinMin Bare Metal Provisioning 5.1 lets you perform remote, unattended installs of several OSes.

LINMIN BARE METAL PROVISIONING 5.1 simplifies the unattended deployment of systems and virtual machines on new platforms and adds "green" features and innovative provisioning business rules.

With LBMP 5.1, you can perform remote, unattended installations of Red Hat, Novell, Microsoft, Ubuntu, CentOS, Fedora, and Asianux OSes and applications onto servers, blades, PCs, appliances, and virtual machines. LBMP gives IT staff system control with Fire And Forget Provisioning, while also simplifying one-off or mass system deployments with On The Fly Provisioning.

Install LBMP, upload your Linux and Windows DVDs and CDs, and create system roles such as Novell SLES 10 with SAP or Microsoft Windows Server.

With Fire And Forget Provisioning, you assign system roles to systems with unique network settings, host name, and passwords. Specify the provisioning rule such as Always, Never, Boot To HD (to avoid accidental repurposing), or Provision Only At Next Network Boot, Then Boot To HD (to prepare systems and provision them during the next network boot).

On The Fly Provisioning lets you select the system role from the client's UI or assign a default role for all unknown PXE boot requests.

LBMP also captures and restores entire disk images to help with disaster recovery and to reduce energy consumption by parking power-hungry systems unless needed. Once provisioned by LinMin, systems are turned over to your systems management infrastructure.

LinMin Bare Metal Provisioning 5.1

Starts at $250 or $100/year for 10 systems

Reduces time and cost to deploy or repurpose Linux and Windows servers, blades, and virtual machines

www.linmin.com

SERVICES   JUNE 6, 2008

Protect Your Data & The Planet

Kroll Ontrack Offers IT Media Disposal Programs

PROPERLY DISPOSING OF and recycling hardware is an important component in protecting the environment. Especially when dealing with hardware that contains sensitive data, it can be unclear how individuals and organizations should dispose of and recycle materials in the way that protects the data and is environmentally friendly.

Kroll Ontrack recognizes the importance of implementing green initiatives, so it wants to lend a hand to individuals and organizations that would like to find more ways to reduce their environmental impact. The services the company offers protect both vital data and the environment—a win-win situation.

Kroll Ontrack is offering media erasing services to help individuals and organizations discard end-of-lifecycle hard drives. Ontrack Eraser software uses overwriting methods to permanently remove data. Ontrack Eraser services, which Kroll Ontrack specialists perform, provide comprehensive removal of data. Kroll Ontrack specialists use a degausser, a hardware tool that wipes out data using magnetic fields.

The services dispose of certain media by disassembling the good parts for reuse before discarding the storage media. Kroll Ontrack's recycling vendor takes the other parts of the hard drives and storage devices and divides the leftover material into groups, such as metals, circuit boards, copper wiring, and aluminum. These materials are then recycled and reused for other products. Even the components left over are not dumped into landfills or incinerators. Instead, a combination of physical and mechanical demanufacturing methods are used to split up harmful materials from recyclable parts.

Kroll Ontrack Media Disposal Program

Media disposal program protects sensitive data and the environment

(800) 872-2599

www.ontrackdatarecovery.com

KROLL ONTRACK®

SECURITY   JUNE 6, 2008

A Secure Virtual Data Container

QuickVault's JumpVault Gives Mobile Devices Powerful Security Features

MOBILE DEVICES are becoming more ubiquitous every day. However, what they gain in convenience they can lose in security. It's common to misplace a mobile device. In either loss or theft, data should be both protected from possible breaches and also able to be disabled remotely.

QuickVault's JumpVault turns nearly any mobile device into a secure, virtual container of information. Size doesn't matter; JumpVault can secure a device with any size internal flash memory. As an added security bonus, the virtual container can be disabled remotely so that the stored data is effectively locked down from any potential breach. Essentially, JumpVault is designed to extend the controlled and secure IT environment to the mobile user.

JumpVault virtual containers are password-protected with built-in 256-bit encryption, remote authentication of devices and users, and meta data logging to keep track of any data movement. When configuring the virtual container, users can include or exclude any files or folders. Supported operating systems include WinXP and Vista, Mac OSes, and Linux. Users can also schedule daily, weekly, or monthly backups and set backup rules. Setup is designed for ease of use and includes drag-and-drop capabilities. JumpVault also automatically compresses files.

QuickVault's servers facilitate a number of functions of JumpVault, including meta data logging and remote data transfer. JumpVault is preconfigured to authenticate with QuickVault's servers, so connection is both simple and secure.

QuickVault JumpVault

Basic Edition: $34.99; Professional Edition: $129.99; 12-month subscription to Remote Security: $60

Provides multilayered security for mobile devices

(404) 735-4443 (volume sales only)

www.jumpvault.com

Agentless Information Recovery Management

Televaulting 8.0 Provides A Next-Generation Platform For Information Recovery

IT PERSONNEL certainly have their hands full with the escalating amount of information stored on networks, server consolidation, compliance, security, and disaster recovery issues always looming. Legacy backup and recovery technologies don't always have what it takes to ensure organizations can map IT processes, reduce IT costs, retain data long-term, and maintain business continuity. So, organizations are turning to agentless information recovery management platforms, such as Televaulting 8.0 from Asigra.

In addition to providing agentless information recovery management, Televaulting 8.0 offers backup and recovery of VMware ESXi, and its intelligent archiving feature provides policy-based backup life cycle management and long-term data retention, while cutting the costs of hardware storage. The multidirectional data center replication supplants storage-storage replication and supports one-to-one, many-to-one, and many-to-many replications. Organizations will have room to grow in both capacity and performance with DS-Client grid-based scalability. Also, Televaulting 8.0 supports SAP, SharePoint, Oracle, Microsoft SQL, DB2, Exchange, Lotus Notes, GroupWise, and others.

With Televaulting 8.0, IT outsourcers and organizations get integrated information recovery management from the data center to the remote office, along with potential solutions for performance loss, manual deployment, burdensome software and information management, limited cross-platform interoperability, and security problems. The nonintrusive platform behaves as a data recovery services "blade" in the outsourcer's, providing capital and operational cost reductions and allowing for the removal of software agents that have damaging impacts. As the only 64-bit agentless information recovery management platform, Televaulting 8.0 offers a centralized approach to agent-based patchwork solutions.

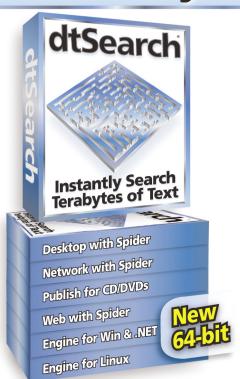### Asigra Televaulting 8.0

Starts at $14,000

Provides data protection and recovery from the data center to the remote office

(416) 736-8111

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asigra

The Essentials Of Backup & Storage

Know The Most Important Issues For Storing & Recovering Enterprise Data

by Chris A. MacKinnon

• • •

IF YOU THINK ABOUT the most important asset in your enterprise, the one thing you could not do without, what comes to mind? Servers? Switches? Power backup? While these are all key components in any enterprise, none is as important as the information that the enterprise generates. Without information, you'd have a bunch of people sitting around IT equipment looking as if their flight had been delayed for a week.

Storing the information is also important, as is keeping extra copies in case the information is lost so you can restore the information if necessary. If you are new to enterprise storage and backup, there are a few things to be aware of off the top. And even if you consider storage and backup as being old hat, it never hurts to revisit the items mentioned herein.

Restoration Nation

Stephen Lawton, senior director of strategic marketing at Acronis (www.acronis.com), says by far the most important consideration any IT staff needs to think about is how to restore its backup. "Having a backup of a server is useless if you can't restore the server to a known, working condition," he says. "Often you will not be restoring to exactly the same hardware. In some cases, you'll need to restore to a brand-new system. In other cases, you could need to restore to a temporary server or even a virtual server. The best way to ensure you can restore to any hardware is to create a disk image that is independent of the underlying hardware platform."

Kevin C. Daly, chief executive officer of iStor Networks (www.istor.com), says no one cares how you do backup. "No one even knows if you do backup. Backups are your problem, and no one wants to know how they happen unless they impact what they are doing," he notes. "But be prepared for people, from the CEO on down, to care a great deal how you do recoveries. Backup failures may cause you to look for different hardware or software. Recovery failure will cause you to look for a different job."

Recovery Testing

Lawton's second piece of advice for IT staff in the small to midsized enterprise is to create and test a disaster recovery plan. "Test the plan on a regular basis," he says. "Do you have a list of which servers are mission-critical, such as your Exchange server or a domain controller, and which are secondary, such as a file and print server? Do you know where to find images for your various servers? It's useful to create images and store them out on the network, but if you don't know where the files are saved, they cannot be easily recovered. It is critical that the IT staff knows exactly what to do when an emergency occurs."

Lawton says it's important to remember that an emergency might not be a natural disaster, such as a fire or flood; it could be a crashed disk drive, malware, or an angry user who wants to cause havoc on the network.

In Daly's opinion, practicing backup restores is the key to recovery success. "If you haven't done recoveries under realistic stress scenarios recently, you are unlikely to be able to do them under real (very high-stress) scenarios," he says. "A CIO once held a staff meeting and asked the head of IT how long it would take to do a restore. The IT director responded that it would take about one hour. The CIO said, 'We will readjourn this meeting when you have completed the restore.' One week later, they still had not had their meeting."

Simplify Classification & Protection

Mark Sorenson, senior vice president of the information management software group at EMC (www.emc.com), says too much information is misclassified and over-protected. "For example," he says, "file systems and email systems today have current, transactional information commingled with aging, dormant data. Since the newest information and the oldest information exist on the same device, all this information must be protected to the highest order of required protection. Dormant information should be archived out of [the] primary storage device onto an active, online archive." Sorenson says this unburdens the remaining transactional data for efficient backup and expedited recovery to meet demanding service levels and cost containment goals.

Eliminate Risk

According to Lawton, prevention is better than a cure when dealing with risk. He says, "Ask yourself these questions: How could risks be reduced? Could security policies be improved? Could a site be relocated to put it out of the reach of the disasters that are most likely to affect it? Could the estimated recovery times for computer systems be reduced? Could an emerging technology be leveraged to help mitigate the effects of a disaster? Fairly minor steps can significantly reduce some risk factors."

Some steps, Lawton says, could include establishing a maintenance schedule for equipment, which can reduce the P in the formula "Risk = P x C x T." The P in the equation is the probability of that disaster affecting a business; C is the hourly cost associated with the nonavailability of whichever processes and systems would be interrupted by that disaster; and T is the estimated time for those processes and systems to be restored.

Disk-Based Backup

Sorenson says there are clear advantages to backing up to disk instead of backing up to tape. "Disk-based backup provides much more reliability and much greater restore speeds than traditional tape libraries," he notes. "Backup to disk eliminates tape infrastructure costs, tape handling risks and costs, and tape access delays. Leveraging backup to disk increases backup and recovery performance, simplifies disaster recovery replication, and [helps ensure] the reliability and availability of backup images." Sorenson says disk-based backup can be deployed without changing current backup software and procedures, which streamlines integration. ▣

Most Important Thing To Know

"Disaster recovery doesn't happen by itself," says Stephen Lawton, senior director of strategic marketing at Acronis (www.acronis.com). "You have to take the time to plan, implement, test, and retest your disaster recovery program. It might not be the sexiest technology, but it can save your business."

He continues, "Disaster recovery is often compared to life insurance—you don't need it unless something serious happens. That's not always the case. It could be a simple deleted file; an accidentally deleted partition; a crashed disk; or a fire, flood, or hurricane. Disasters come in all sizes and can hit at any time. The only way to ensure that your company is protected is to make disaster recovery and planning a regular part of your IT policies and procedures, just like antivirus software."

> **"Recovery failure will cause you to look for a different job."**
>
> *- iStor Networks' Kevin C. Daly*

Keeping Track Of Names, Not Numbers

eTelemetry's Locate 4.1 Gives Administrators Name-Based IP Address Tracking Capabilities

IT CAN BE DIFFICULT to track users on a network when their only identifying mark is an IP address. Locate 4.1, eTelemetry's network appliance for IP mapping, makes it significantly easier by attaching people's names to IP addresses, MAC addresses, and switch ports.

The appliance makes it easier and faster to locate devices, users, and connections and helps administrators react more proactively to network threats.

Keeping track of ports and addresses by name enables network forensic tracking to account for employee network activity. With configurable reports, administrators can detect rogue Wi-Fi networks so they can react in a timely manner.

Locate lets administrators acquire email, instant messaging, and switch port information from unauthorized users and quickly identify and shut them down. An additional feature named Instant Assist can be leveraged by help desk staff to locate a user's network by name and, with a one-click connection, implement Remote Desktop and Remote Assist.

With Locate 4.1, visibility is possible even without a centralized network, and security and identity management features will still benefit a system without a network operating system.

Locate 4.1 works with any wired or wireless network, features plug-and-play installation, and works from a mirrored port to avoid impacting network performance.

Locate 4.1

$7,495

Provides easy name-based tracking and management of IP addresses on the network

(888) 266-6513

www.etelemetry.com

LOCATE by eTelemetry

Data Center Environment Basics

and uptime, says Giovanni Coglitore, chief technology officer at Rackable Systems (www.rackable.com). He believes a wave of innovation is imminent because data centers are demanding more and more cooling.

In the meantime, get cozy with an HVAC system by taking a course or doing some reading on how these systems work. Also, talk with whomever maintains the center's system, which is usually building maintenance. Knowing how often filters are changed, whether there's a plan for increasing efficiency in the warmer months, or whether construction in other parts of the building will affect cooling levels are all pieces of data that are far better to learn in advance.

Become A Monitoring Maniac

Thanks to a very competitive landscape in data center environmental controls, a number of monitoring tools are available,

and many are often part of other applications. Look for tools that issue alerts to multiple people in multiple formats—often, alerts can be sent to email and cell phones simultaneously—and check the log reports that are created to make sure that there are no spikes that went unnoticed.

Management Is A Group Effort

Making sure that tasks such as monitoring and cooling tweaks are being managed can be daunting. At most SMEs, the IT staff is too busy putting out fires to develop these types of proactive strategies and checklists, but experts note that they're vital for making sure environments are running properly.

One boon may be depending on more automated processes that deliver results of environmental tests right to an inbox. Also, doing "fire drills" for recovery processes, such as what would happen if the power went out, is vital, notes Jim Reinert, senior

director of data recovery service Ontrack Data Recovery (www.ontrackdatarecovery .com). He says, "The time to find out when something isn't working is when everyone needs it to be back up."

Data center managers can make these tasks more meaningful if each staff member is responsible for certain roles. For example, one person might be in charge of HVAC issues, while another takes on recycling.

Every IT Department Has To Think About Growth

Even if you've just landed in the data center, it's never too early to think about increasing efficiency through power, cooling, monitoring, and better management tactics because these not only decrease the chances of downtime but also put the center in a better position for growth.

And growth is inevitable, notes Ken Brill, executive director of the Uptime Institute. In a recent study, the organization found that nearly every data center manager interviewed expected to expand capabilities and equipment within the next 30 months. With that level of growth will also come a bigger bite of the budget, he adds.

"Facility costs used to be 1 or 2% of operating costs," says Brill. "Right now, they're about 5%, but it wouldn't be surprising to see it go much higher in the next few years, maybe even as high as 30%."

In other words, plan for the worst of budget crunches, and the center won't be surprised down the road, when environmental costs might soar. "Everyone needs to create

> ## It's never too early to think about increasing efficiency through power, cooling, monitoring, and better management tactics.

more long-range thinking," Brill says. "Develop new muscles in terms of planning." ℗

Implementing Power Distribution

total costs saved that come with investing in more efficient equipment."

Given that power will increasingly represent one of the costliest components of a data center, it is in your interest to take a more proactive approach when it comes to how a data center consumes electricity by implementing a solid power distribution plan.

Expert Reliance

Power measures, quad feeds, and other terms that are part of an electrician's lexicon are usually not on the tip of the tongue of the average IT admin. So, when it comes to laying the groundwork for a data center's electric infrastructure, not to mention implementing a power distribution system, a qualified electrical engineer with a bachelor's of science degree in tow is usually the best person for the job.

"Most data centers will use a third party with a staff of electrical engineers to plan the infrastructure," Skorjanec says. "Those that plan and do the building of the electric infrastructure are usually degreed engineers."

But even with an electrical engineer's help and input, admins still need to have a solid understanding of how power distribution works and how to use it to lower costs and

boost efficiency. It is also necessary to work closely with the third party that manages the construction of the infrastructure before beginning to monitor and maintain the power distribution system once it is implemented.

"It really takes a combined effort because you have the IT manager who has the knowledge of the equipment and what he wants the system to do," Skorjanec says. "I have seen some cases where they lay the electrical infrastructure, and when [the admins] go to plug the equipment in, there is a disconnect because they can't even plug in the equipment correctly."

Much of the work with an engineer will also take place at the very beginning stages of the project, during what Michael Petrino, vice president of PTS Data Center Solutions (www.ptsdcs.com), describes as the planning, predesign, and engineering phases.

"Put simply, a lot of work and steps are completed before the final power equipment order is cast in stone," Petrino says.

Smarter Power Consumption

Calculating the true amount of power the data center requires and how the power is delivered represent the main variables to take into consideration. As an example, careful planning can limit the amount of

power distribution-related equipment that needs to be implemented.

"If [you] plan properly, then only two infeeds (A and B) need to be run to the cabinet to power all of the devices," Calvin Nicholson, director of product marketing for Server Technology (775/284-2000; www.servertech .com). "This saves on poles at the breaker, the cost of running more whips or additional whips, less cables to block the airflow, etc."

Overall, there is a direct correlation between the power and cooling needs of a data center environment, Petrino says. "Many of the criteria need to be considered in conjunction with each other in a coordinated plan to have predictable, measurable results," Petrino says. "Handling power and cooling decisions separately will deliver less-than-optimal results."

The Technology Factor

The adoption of new technologies for power management in the data center has often lagged the overall explosion of IT applications in the workplace. Monitoring power distribution is an example of an important, yet often underutilized technology that can help improve the efficiency of your data center's electricity consumption.

"We are providing new technologies that allow the user to monitor their power consumption from the outlet, to the device, to the application, to the rack, and even over multiple racks. You cannot improve on something you cannot measure, and many of the 'green' efficiency calculations require the user to know the load right at the device," Nicholson says. "We feel that this is the direction the industry is taking and is not just a trend. The carbon footprint of the [data center] market is larger than the airline industry, and since a [data center] can use as much power and water as a small town, this is not going unnoticed."

Monitoring products at the very least should have a local meter that offers ampere, voltage, and kilowatt information through a graphical interface, Nicholson says. Monitoring environmental information, such as temperature and humidity levels, requires a power distribution unit that also offers email alerts, SNMP, and other features.

Future Proofing

Assessing your power distribution requirements in the near- and long-term, unfortunately, is about as easy as it is to predict future business cycles. It is all the more difficult to anticipate the future because power demands are growing so rapidly, Nicholson says.

"The utility might not even be able to deliver the amount of power required as the [data center's] demand changes," Nicholson says. "Also, just because you can power it does not mean you have the ability to cool it, so this must be taken into account."

Still, admins should attempt to look ahead and prepare for upcoming power distribution needs, regardless of the challenges in doing so. "It is always good to plan for future expansion. Most of the server suppliers offer power calculators on their Web sites so you can get a good idea of the amount of power required now and provide additional or excess power," Nicholson says. "But overall, this is a very hard thing to predict." ℗

Establishing A Power Distribution Plan

The design and development of a data center's electrical infrastructure comprises several steps. "The design criteria should define an adaptable, highly available, maintainable, manageable, and cost-effective solution," says Michael Petrino, vice president of PTS Data Center Solutions (www.ptsdcs.com).

Petrino offers the following guidelines that summarize what is involved:

1. Determine the critical load.
2. Establish the critical loads in terms of watts per RLU.
3. Determine the power reliability needed.
4. Determine the power distribution strategy.
5. Identify the cooling performance impact from the room's power distribution strategy.
6. Identify the cooling performance impact from the RLU power distribution strategy.
7. Identify the cooling performance impact from the room and RLU data cabling strategy.
8. Divide the room into power and cooling zones by RLU.
9. Determine the most appropriate UPS type(s).
10. Determine the most effective power delivery methodology(s).
11. Determine the most appropriate generator type.
12. Establish a floor plan.
13. Deploy a comprehensive IP-based monitoring system.

SOURCE: PTS DATA CENTER SOLUTIONS (WWW.PTSDCS.COM)

Virtualization Fundamentals

Five Things To Know About The Technology & How It Can Transform Your SME

by Sandra Kay Miller

• • •

"VIRTUALIZATION IS THE HIGHEST-IMPACT trend changing infrastructure and operations through 2012. It will change how you manage, how and what you buy, how you deploy, how you plan, and how you charge." This is according to Gartner's 2008 report "Virtualization Changes Virtually Everything."

Research firm IDC lists only 22% of servers today as being virtualized; however, it expects the number to grow to 45% over the next 12 to 18 months.

There are a number of reasons data centers are increasingly turning to virtualization technologies, including a reduction in complexity, optimization for existing resources, and shrinkage of the physical footprint. The overall benefit translates into cost savings, a must in organizations today.

More hardware and software vendors are including support for virtual deployments, leading to more medium-sized to large data centers migrating from legacy systems to cutting-edge virtual infrastructure. Faster new server, application, and storage

Most Important Thing To Know

Implementing virtualization into the data center can deliver significant overall cost savings. As data center budgets are being squeezed in the current contracting economy, solutions delivering significant cost savings are an easy sell to key decision-makers. Virtualization offers potential savings in six distinct areas: hardware, licensing, power, cooling, real estate, and management.

A reduction in hardware and environmental requirements will offer the most significant savings up front. In time, data centers will experience lower administrative costs as less time is spent on installations, provisioning, monitoring and applying updates and patches, and backups.

Sun Microsystems' (www.sun.com) CIO Bob Worrall says his team was able to eliminate an entire data center through virtualization. "We were able to cut energy costs here in Santa Clara by 60%," he says. "Anyone can appreciate what a reduction of that size would mean to your bottom line; it's pretty significant. Similarly, having lived in the Bay Area all my life, with an 88% reduction in floor space—think about the real estate costs and what that's worth. Here, that's worth millions of dollars a year."

deployments; higher availability; and better, less-expensive provisioning for business continuity are some of the benefits organizations are experiencing as they implement virtualization solutions.

As more organizations take a look at adding virtualization technologies to their data centers, here are some things to consider.

Not All Virtualization Is The Same

There are many flavors of virtualization—hardware, operating system, applications, desktop, presentation, and storage—all with the same goal of masking the physical aspects of technological resources from the end user.

Operating a single physical server hosting multiple instances of an operating system is a common virtualization method, but taking it a step further, data centers are also starting to virtualize the applications themselves, which isolates the programs from the underlying operating systems. The advantages are twofold, with increased security and better software distribution and license management.

There Are Multiple Business Cases For Virtualization

Those cases for virtualization include high availability, consolidation, load balancing, and disaster recovery. Just as there are numerous types of virtual environments, the variety of business cases is growing.

Once limited to testing and development, virtualization has infiltrated just about every facet of the data center. For data centers near capacity, consolidation through virtualization can add years to the facilities' usefulness and reduce the need for physical expansion. Virtualization can also help increase availability as requests can be automatically distributed across resources during peak times.

One of the strongest business cases for instituting virtual technology in the data center is instantaneous disaster recovery. Virtualized environments can be spawned automatically onto hardware—even disparate systems—when physical hardware is rendered unavailable either by a simple power outage or a full-scale natural disaster. At this year's IDC Virtualization Forum, analyst John Humphreys said that the trend of extending virtualization into disaster recovery is a lucrative way for virtualization vendors to enter the small and midsized enterprise market, where IT budgets are

small but the potential loss of a day's work could quickly destroy a business.

John Benjamin, director of partner enablement for CA's Recovery Management and Data Modeling Business Unit (www.ca.com), lists high availability, business continuity, data replication, and loss

prevention as advantages virtualization offers in addition to server consolidation.

Security Is Still Critical In A Virtualized Environment

The most basic tenet of virtualization is partitioning. Each virtual environment is completely isolated so as not to interfere with the others. However, virtualized environments do not negate the necessity for security measures such as firewalls, IDS/IPS, and antivirus.

Recognizing the unique challenges of securing virtual environments, vendors are responding with solutions designed specifically for the virtual realm. The overall management of multiple security measures has presented challenges, but moving security to a virtualized environment means that despite having numerous instances of a virtual firewall running on a variety of virtualized servers, managers can administer each from a centralized virtual layer.

Once a virtual environment is active, be cognitive of which users have rights to create virtual machines. Rogue virtual servers are security risks.

Additionally, physical security practices should track parallel to virtual environments, meaning that if sensitive data is required to be separate from applications with Web access, in the virtual realm, it should be similarly encapsulated.

Understand The Trade-Offs & Limitations

While the benefits of virtualization can add up quickly, it does have some pain points and limits. When you're considering moving to a virtual infrastructure, it is critical to examine the processing overhead and ensure the performance of the application is not negatively affected. Processing overheads can range from as little as 1% to as much as 60%. Some virtualization products have limitations on the number of servers hosted.

Just as with the physical environment, the underlying hardware must support the virtual servers. Advances in virtualization are now providing full SMP support, 64-bit processing, and up to 16 CPUs and 64GB of RAM within each virtual machine. Therefore, the virtualized operating system and applications must also support that level of horsepower.

The Desktop Is The Next Frontier In Virtualization

Server and hardware virtualization has laid the foundation for the next generation—the virtualized desktop and presentation layer.

Desktop virtualization lets users run their desktop OS within a virtual environment. This provides IT managers with better control over users' machines both onsite, as well as for remote access.

Taking the virtual desktop a step further, virtualized presentation layers provide users with seamless remote access to their desktops. Applications run completely on a remote virtualized system, but the display is on a local system.

Virtualization also increases the portability of virtual machines. Imagine the cost savings and productivity from employees who could carry around their desktops on a flash drive and have full access to enterprise applications from multiple locations.

"We want to make virtual computing a lot easier for both users and administrators," says John Whaley, founder and CTO of MokaFive (www.mokafive.com), a company that offers a way to create, update, secure, and control virtual desktops. "The idea is that you run your desktop on top of a virtual machine so you can get all the benefits of virtualization. You can take your computer along anywhere you go on a USB drive, plug it in to any machine, and use it right there. You can share your desktop with other people over the Web, and you can administer any number of desktops from one centralized location all around the world." ▣

Server Power, Laptop Portability

Eurocom's D90xC Phantom-X Mobile Server Provides Powerful Computing On The Go

THE NEED FOR POWERFUL, server-caliber computing in settings other than a typical office is a large and crucial one. Eurocom addresses this market with its D90xC Phantom-X Mobile Server, a powerful PC in a laptop form factor that weighs just 12 pounds.

The D90xC Phantom-X is a 64-bit system that operates on Intel quad-core Xeon processors running at 2.83GHz with 1,333MHz frontside bus and 12MB of L2 cache. Speed is

further facilitated by up to 8GB of DDR2-800 memory.

Although measuring 11.9 x 15.8 x 2.05 inches (HxWxD), the D90xC Phantom-X supports up to three SATA-300 hard drives for up to 1.5TB of storage. Users can also choose between RAID 0, RAID 1, or RAID 5 configurations.

Other features include a 17-inch dis-

play, a one-hour backup battery in the event of a power failure, and a rewriteable Blu-ray drive. The keyboard is a full 102-key desktop-type board with a separate numeric keypad. Wireless options include built-in 802.11a/g/n WLAN, as well as Bluetooth.

The D90xC Phantom-X also features a number of I/O ports, including a Gigabit Ethernet LAN with an optional second Gigabit Ethernet port via a PC Express slot. The computer also features four USB

2.0 ports, FireWire, serial and parallel ports, and CRT and DVI-D ports to power up to two additional external displays.

The D90xC Servers are customizable, and the hard drives, memory, optical drives, processors, and graphics are upgradeable.

Eurocom D90xC Phantom-X Mobile Server

$2,454

Server-caliber computing power in a laptop form factor

(877) EUROCOM

www.eurocom.com

Regulatory Compliance: What You Should Know

Don't Underestimate Its Importance In Your Enterprise

by John Brandon

• • •

FOR DATA CENTER MANAGERS, understanding regulatory compliance is like doing your taxes: It involves wading through a plethora of minor regulatory updates, hours of research, and quite a few headaches. Yet ask anyone whose company is under an injunction for a data breach if compliance is important, and you will likely hear a litany of sage precautions—or a lot of grumbling and "should have dones." Compliance may not be as exciting as installing a new 100Mb pipeline at the office or running a slick new Web 2.0 application for the marketing department, but it can be a critically misunderstood topic.

Once you understand the grievous nature of data breaches and how litigation can bring operations to a screeching halt even for the most seemingly minor offense, it's easier to focus on governance as a priority. Here are a few important tips and guidelines to help you on the road to airtight data control.

Understand The Importance

Before even visiting one Web site or talking to your legal department, IT managers should first understand how important data governance, archival process, and compliance are to company health. Without this understanding, the other steps in meeting regulatory compliance (no matter how important) may fall into a category where other topics, such as storage or servers, take a quick priority.

Most Important Thing To Know

In IT, the most well-known advisory firms almost always turn the conversation toward process. The term is used as the answer to almost every IT question. In the compliance field, where topics such as log management, archivals, and governance play a key role in how data is collected, stored, and archived, having a sound, well-established process is critical.

"There are all too many small and medium-sized businesses in danger of or actively falling through the cracks of compliance regulations," says Charles King, an analyst

DATA

with Pund-IT (www.pund-it.com). "Some of these organizations don't understand the complexity or gravity of the regulations with which they're required to comply, while others believe that playing dumb will provide adequate protection for first offenses. Both behaviors can lead to expensive, difficult, and unnecessary lessons."

Start With Communication

The most obvious strategy for a company of any size, no matter how many employees are involved with IT, is to do the hard work of communication. Brian Babineau, a noted analyst at Enterprise Strategy Group (www.enterprisestrategygroup.com) who has extensive data center compliance experience, suggests that IT sometimes uses a "playing golf in the dark" approach to regulatory compliance. Not surprisingly, without a clear customer-centric goal related to compliance, managers often deliver the wrong solution.

Babineau advises data center managers to be much more proactive. He says a first step is to meet with any legal and compliance teams in the company and/or any department that could impact data governance rules, such as the human resources department that needs to protect sensitive employee data.

This concept is a bit different from one that is often employed, which is a discovery process that seeks to understand the regulations first as opposed to their impact on the company. Instead, it is a strategy that puts an emphasis on the customer of IT—its needs and its data security issues.

Research After Communication

After holding these discussions with stakeholders, IT can then better research what regulations exist. It is partly a matter of researching regulations and partly a matter of understanding the IT process required

for those regulations. With PCI DSS (Payment Card Industry Data Security Standards), for example, you may discover that the regulation requires a retailer to change its transaction process at the point of sale or encrypt data more thoroughly.

"After this research, IT should figure out what processes will support compliance and then determine if these processes can be improved, automated, or reconstructed with the right technology," says Babineau. "Then, it is time to start making investments [in technology products]."

Match Compliance To Industry

Because every industry is different, the rules that apply to one field may not be applicable to another, a trap that managers sometimes fall into. Often, it's easy to see a rule in an industry such as health care that governs patient records, for example, and then assume that rule applies equally to a manufacturing or automotive company.

"The most important points for companies to determine are what rules and regulations apply to their operations and which information is affected," says Pund-IT's King. "That may seem simple, but for heavily regulated industries like health care, it can be very complex. The next step is to consider what sorts of solutions a company's existing and favored vendors offer and how they stack up against the competition. Meeting compliance requirements can be so critically important that deploying new technologies may be the best way for an organization to meet its needs."

Find Ancillary Tools

Another strategy in regulatory compliance is to look for tools and vendors that provide an ancillary service to enhance your process and make your data collection even more secure. In the event of a discovery against your company, you can produce a wealth of extraneous data to assist in the process.

"The log management sector has blossomed in recent years to help customers meet compliance needs—companies like LogLogic, Alert Logic, Prism Microsystems, and others," says Michael Coté, a RedMonk analyst. "While most of these tools fly under the banner of the more generalized 'log management' area, much of their focus and domain-specific functionality comes into play with compliance." **P**

> Look for tools and vendors that provide an ancillary service to enhance your process and make your data collection even more secure.

Regulating Electronic Communications

Archive Messages With Akonix's L7 Enterprise For The BlackBerry Enterprise Solution

AS PROFESSIONALS USE ELECTRONIC communications more and more, organizations must look for ways to supervise and archive this type of communication to prevent fines and legal sanctions.

For organizations looking to archive and monitor all forms of electronic communications, Akonix has introduced the L7 Enterprise for the BlackBerry Enterprise Solution.

As a new addition to the Akonix UPM (Unified Policy Management) platform, L7 Enterprise for BlackBerry archives SMS, PIN-to-PIN text messaging, instant messaging, and email, making them searchable, retrievable, and auditable. They can

be sorted by employee name, group, or other directory attribute. L7 Enterprise can also offer security, policy management, and content filtering in addition to the archiving, with support for Microsoft Office Communicator Mobile, IBM Lotus Sametime Mobile, and MindAlign Mobile.

The L7 Enterprise provides thorough electronic message storage by integrating with LDAP directories, such as BlackBerry Enterprise Server, Microsoft Active Directory, and email archive platforms, such as EMC EmailXtender, HP Integrated Archive Platform, and Symantec Enterprise Vault. L7 Enterprise provides multiple real-time communications from a single console and the ability to apply and enforce policy through other L7 Enterprise modules

available for enterprise and public IM, online conferencing, server-based fax, and VoIP. It will be available as an add-on module for Akonix's A1000 and A6000 appliances or as a Windows Server software module.

Akonix L7 Enterprise for the BlackBerry Enterprise Solution

Starts around $10 per BlackBerry

Helps organizations archive and regulate electronic communications

(619) 615-9410

www.akonix.com

Akonix
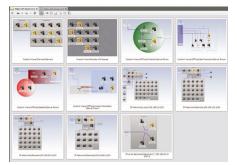
Easy Network Monitoring

Manage Network Events With AdRem Software's NetCrunch 5

NETWORK MONITORING can be a complicated set of processes. Simple, clear-cut solutions are hard to find, which is why AdRem Software developed NetCrunch 5, a network monitoring solution for SMEs.

NetCrunch 5 boasts the inclusive monitoring of Windows, Linux, NetWare, and SNMP devices. NetCrunch 5 differentiates itself not only by providing such a wide array of monitoring coverage, but also by doing so in an agentless manner.

NetCrunch 5's new features include predefined monitoring policies for major operating systems and applications such as Exchange, SQL Server, Oracle, Insight Manager, IBM Director, and others. NetCrunch 5 is able to monitor an assortment of systems and devices, as it also contains RPC, WMI, SSH, and SNMP monitors and more than 65 built-in network service monitors. A major feature that makes NetCrunch 5 so easy to use is its intuitive user interface. NetCrunch 5 will automatically perform network discovery, a scan of your system that will identify and classify nodes and present them in a graphical map form, making it easier to see where problems occur and making solutions faster and more efficient.

AdRem Software's NetCrunch 5 promises to reduce the cost of IT operations and thus improve company revenue. IT professionals will appreciate lower maintenance requirements and shorter deployment time.

NetCrunch 5 presents data in graphical form, making problems easy to identify and faster to correct.

NetCrunch 5 is designed to run on Windows XP SP2, Vista SP1 (excluding Home), and Windows Server 2003 x32 or x64 and comes in two editions: Premium and Premium XE. The Premium XE edition is intended for a dedicated server, as it is optimized for larger, intensely monitored networks. Both editions include a one-year professional service agreement with annual upgrade protection.

AdRem NetCrunch 5

Premium: starting at $2,595

Premium XE: starting at $7,495

An inclusive network monitoring system that makes solving problems easy with predefined monitoring policies and a graphical interface

(212) 319-4114

www.adremsoft.com

Audit Your Computer Inventory
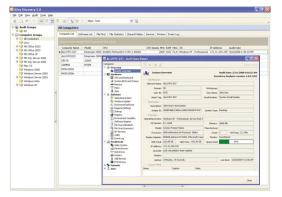
Alloy Discovery Provides All The Necessary Tools

THE INVENTORY of computer hardware and software can be easily overlooked. Alloy Discovery from Alloy Software is a network inventory solution to help SMEs gain tight control over their entire computer inventory through a combination of audit methods that include an agentless on-demand audit, login-script, scheduled task, and the portable audit for non-networked computers.

Alloy Discovery can configure, deploy, and run inventory audits, as well as help analyze the audit results. For flexible deployment, the software offers multiple configuration options, including single- and multi-domain networks; workgroup networks; remote (WAN) sites and isolated networks; and standalone and non-networked computers. Alloy Discovery lets you audit computers on an ongoing basis.

To help maintain an up-to-date inventory, Alloy Discovery includes an automated archive process called "Pruning." This process allows you to define a schedule for the removal of obsolete audit snapshots and determine the file storage path for archived records. The system will then automatically remove obsolete audit snapshots from the Inventory Repository.

With flexible data filtering and grouping, Alloy Discovery lets you sift through data using specific criteria.

The audit results can help you plan for OS migrations and hardware and software updates, and you can integrate the data with other interfacing applications.

Alloy Software Alloy Discovery

100 computer node license: $795, with additional computer nodes $3 each; special pricing for IT service providers

Audit the hardware and software on your computer network

(973) 661-9700

www.alloy-software.com

Remotely Manage Any Type Of Application

Rose Electronics UltraLink 2 Offers Remote KVM Access Over IP

ROSE ELECTRONICS UltraLink 2 sets a new standard for an easy and secure way to remotely manage server room environments, remote standalone applications such as digital signage, and other remote applications.

Use the UltraLink2 to access your computers and servers locally, across your network, or over IP using a Web browser. Connect the unit to a Rose Electronics KVM switch, and you now have access to as many as 1,000 computers or servers from anywhere in the world.

The UltraLink 2 is easy to install and configure. Connect the unit, assign an IP address and network information, and remotely connect to the unit, and it's ready to use. Instead of going to a remote site to perform an upgrade or patch, let the remote site come to you.

The Virtual Media feature allows the IT professional to remotely access USB-equipped systems and perform patches and upgrades without the expense of a trip to the remote site. On the dual access model, a local KVM station can be connected for direct access to the connected computer.

Other key features include:
• Virtual Media feature allows authorized remote users to transfer files and folders to a computer. This feature makes upgrades possible from remote locations.
• Front panel indicators show Link, Local or Remote connection, VNC, Network Speed, and Power.
• Password security prevents unauthorized configuration and access.
• Resolution up to 1,280 x 1,024.

Rose Electronics UltraLink 2

Starts at $695

Connect to computers or servers locally, across a network, or over IP

(800) 333-9343

www.rose.com

Versatile Dual-Mode Shipping Case

Safely Transfer Enterprise Hardware With The Pelican 1730

THE TRANSPORT AND protection of sensitive equipment should be important to any company that cares about the integrity of its products. Items such as flat-screen displays, hard drive towers, and server nodes need to be moved with careful consideration so as not to disrupt vital components during shipping. IT professionals who oversee valuable hardware understand how essential it is to have a dependable mode of transportation.

Pelican's 1730 Transport Case functions as a reliable case that protects even the most fragile supplies as they're sent from location to location. With 10,000 cubic inches of configurable storage, the 1730 is designed to be moved either individually or stacked on pallets. Mobile-friendly features include polyurethane wheels, nylon hubs, and two double-wide handles convenient for manual towing. Stacking multiple cases is never an issue with four extra-deep, base-to-lid locking cleats, and the case's dual-action latches are built to withstand close to 400 pounds.

The automatic pressure equalization valve prevents moisture from entering the case. This feature also enables the case to adapt to any altitude. The optional manual pressure regulation is ideal for housing equipment that requires a temperature-controlled environment. If the humidity level changes inside the case, the humidity gauge will change color as it rises above 40%.

Other characteristics that make the 1730 design unique include the sturdy, yet light, solid wall architecture with open cell core, polymer construction, watertight O-ring seal, and fold-down handles. Inside is the customizable Pick 'N Pluck foam, which comes as a five-piece set.

Pelican 1730 Transport Case

$549.95

Durable storage case safeguards movable supplies and regulates temperature-sensitive equipment

(800) 473-5422

www.pelican.com

Fixed RFID Reader

Motorola XR450 Reduces Costs & Increases Inventory Visibility

THE XR450 fixed RFID reader is designed to help enterprises achieve a competitive advantage by increasing inventory visibility and process efficiency, resulting in reduced costs and improved profitability.

The reader enables customers to select between using four mono-static ports that each utilize a single antenna to transmit and receive or four bi-static ports that utilize dual antennas. In this way, the XR450 RFID reader provides greater flexibility to adapt the reader to the intended application and perform deployments at the highest possible performance in the most challenging RF environments. Superior read rates and enhanced read ranges easily accommodate multiple RFID applications—from the manufacturing floor to warehouse loading docks to the retail store front. Advanced data collection features enable the rapid delivery of refined real-time information.

The ability to incorporate alarms, light sensors, and more from other automated asset equipment enables a wide range of business processes—from dynamic reconfiguration of build-to-order assembly lines to real-time alerts that can prevent the placement of inventory in the wrong location.

The standards-based SOA enables seamless integration and interoperability with existing IT infrastructure—and maximum application flexibility. Robust RFID functionality includes support for standard back-end platforms, direct application hosting, and the ability to interact with additional asset automation equipment such as forklifts and conveyor belts.

Support for leading business systems includes IBM's Data Capture and Delivery Solution certified to work with IBM Premises Server 6.1 and 6.0, Microsoft RFID Biz Talk Server 2006 R2 and SAP, as well as leading development tools, including .NET 2.0 and off-the-shelf applications.

The ability to control and maintain all XR Series Readers from a single central location dramatically simplifies and reduces the costs associated with day-to-day management.

Motorola XR450

Starts at $2,195

RFID Reader is easy to use and can serve as a control center for all XR Series Readers

(800) 722-6234

www.motorola.com

MOTOROLA

Managing Storage

Storage Horizon 3.7 Provides Analysis For Better Management

MonoSphere Storage Horizon 3.7 offers detailed views for more efficient storage management.

WITH THE VARIETY of different storage environments used by SMEs, it can be difficult and time-consuming to manage all of a company's data storage. MonoSphere has upgraded its storage management software to meet this need.

One of the newest upgrades to Storage Horizon 3.7 is increased support for VMware server virtualization with visualization of storage abstraction. The software analyzes and displays results for storage usage details and relationships between servers, file systems, virtual disks, guest OSes, and guest OS file systems/raw devices, so managers can determine when additional storage needs arise.

Other enhancements include automated chargeback analysis, advanced analytical capabilities, and analysis of database storage consumption. With automated chargeback analysis, logical and physical IT assets can be grouped with a variety of different parameters and automatically analyzed to show storage usage.

Advanced analytical capabilities provide reports to help eliminate wasted or unused storage assets. Reports analyze storage consumption by volume group, free pool report, LUN-to-disk analysis, and dark storage breakdown. Other new analytical functions include automated scheduling and distribution of analytical reports.

Enhanced database storage consumption analysis provides feedback that enables database users to drill down to see details concerning table spaces and data files, as well as view log applications, data vs. log information, and public folder and mailbox rollups. Storage Horizon 3.7 supports Oracle, MS SQL, and Sybase databases and MS Exchange.

MonoSphere Storage Horizon 3.7

Starts at $50,000

Provides detailed analysis for simplifying and optimizing enterprise storage capacity management

(800) 925-3040

www.monosphere.com

MONOSPHERE

Helping Organizations Meet Compliance

Global DataGuard Offers Security Suite & Services

GLOBAL DATAGUARD is offering a full suite of enterprise-class products and services to assist organizations in protecting confidential healthcare data and electronic healthcare transactions. Within its Enterprise UTM portfolio, the Enterprise UTM++ solution and ASM (All-n-One Security Module) for Enterprise UTM integrate a range of enterprise-class security applications, including firewall, antivirus, and antispam; a VPN and Web content filter; IP reputation; IDS and IPS; network behavioral analysis and correlation; vulnerability scanning; a security event manager for global, network, and vendor threats and detected vulnerabilities; and network access control and monitoring.

Because all of the Enterprise UTM security applications are integrated at the architectural level, organizations realize better performance and service at a lower cost of ownership—up to 60% over standalone products. Application modules can be deployed as part of a complete security infrastructure or can be added incrementally, as business and compliance requirements evolve.

The All-n-One Security module for Enterprise UTM comes in four options (with firewall, VPN, antivirus, antispam, content filter, IP reputation, and IPS included), with pricing starting at $7,500 for an ASM core module. Custom configurations for the Enterprise UTM++ solution are designed and priced based on an organization's unique network requirements. Pricing for turnkey managed services starts as low as $1,000 per month.

Global DataGuard's approach to supporting organizations in improving their compliance posture includes aspects such as behavioral analysis and correlation, security monitoring, vulnerability management, network access management/monitoring, assessment, training, project management, policies and procedures, and regulatory compliance audits. It provides a risk-based methodology, regular reviews of security controls, full life cycle device management, and audits and assessments for workforce and training policies.

Global DataGuard Enterprise Unified Threat Management Suite

Helps organizations protect healthcare information

Starts at $7,500 for an ASM core module

(972) 980-1444

www.globaldataguard.com

Global DataGuard

Mobile Management

Control Wireless Networks
With AirWave Wireless Management Suite 6

View and control all aspects of your wireless network with the AirWave Wireless Management Suite 6.

THE MOBILE workforce is growing as wireless technologies emerge and evolve. While this is great for the success of organizations, it can be a burden to IT support teams. But with a program that gives you visibility and transparency from a single console, such as the AirWave Wireless Management Suite 6, organizations can configure and manage an entire wireless network without additional costs.

AirWave Wireless Management Suite 6 from AirWave, a division of Aruba Networks, can help organizations migrate to 802.11n technology without discarding legacy infrastructure. The application also features a new Help Desk module that integrates with existing service desk solutions to provide IT with automated diagnostics and real-time monitoring for more efficient resolution of end-user issues.

Access points, routers, switches, authentication servers, and management servers are visible across wired and wireless infrastructures. This program provides comprehensive reports and centralized control of tens of thousands of wireless devices.

The AirWave Management platform provides real-time monitoring of wireless users and devices, as well as multivendor support. VisualRF software features direct CAD and bulk floor plan import to make console views more user-friendly, along with visual display of alerts and error conditions. For enhanced security, the platform includes RAPIDS rogue AP detection software. The AirWave Master Console offers scalable centralized configuration and detailed reports of the network's performance, groups, locations, and individual devices.
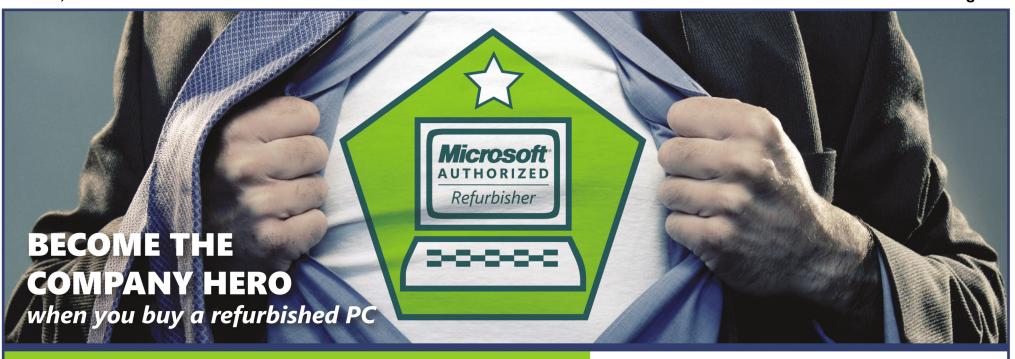
AirWave Management Suite 6

Starts at $5,000

Helps organizations configure and control an entire wireless network from a single console

(866) 802-1121

airwave.com

ARUBA networks
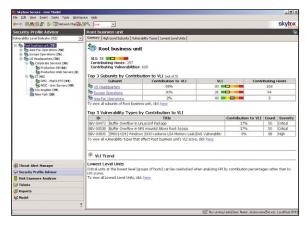
Visible Network Protection

Skybox View 4.0's Automation & Analytics Provide Transparency & Security

Skybox View 4.0 organizes important security information and makes it easy to sort through.

MOST ORGANIZATIONS have a security point solution, but many of these programs produce a large amount of data, which can be difficult to sort through. And with the diversity of today's threats, managing the life cycle of risk and protecting the network is harder than ever. The Skybox View 4.0 helps alleviate security risks while also providing a unique mix of automation and analytics.

Skybox View 4.0 is a modular and scalable fourth-generation software platform designed to help organizations find and prioritize high-risk areas and foresee compliance vulnerabilities. The mix of automation and analytics provides insight into possible IT security gaps and threats, so organizations can protect themselves. Skybox View 4.0 also offers simulation, workflow management, and decision-support analysis. Through these capabilities, Skybox View 4.0 can craft large amounts of information into precise, timely, and organized plans.

Customers who have implemented Skybox View 4.0 have seen their IT risk exposure window reduced by 95%, the cost of security compliance decrease by 85%, and time and labor decrease between 80 and 90% as a result of the optimization of manual processes.

Skybox View 4.0 provides a generous package of reporting capabilities, including tailored reports for specific audiences.

Skybox Security Skybox View 4.0

Starts at $50,000, based on network size

Offers a mix of automation and analytics to help security risks become more transparent to organizations

(408) 441-8060

www.skyboxsecurity.com

skybox security

Manage IT Processes

Opalis Integration Server 5.5 Reduces Costs & Downtime

From Opalis' Operator Console, users can view automation across the entire network.

IT'S WELL KNOWN that a large portion of IT budgets is spent on maintaining systems already in place. Because of the variety of hardware and software required to run an IT center and the lack of integration between the parts, many tasks must be performed manually. This results in a high number of human errors, which is the primary reason for network downtime.

More automated IT processes and tasks, coupled with better interoperability between different vendor's products, greatly reduce network maintenance costs, as well as network downtime. Opalis Software addresses these issues with Integration Server 5.5. The software is designed to help managers oversee the IT infrastructure more effectively, free up important resources, and generally reduce operational costs.

Features of Integration Server 5.5 include means to efficiently and effectively monitor, operate, and manage data center processes. The New Executive Dashboard gives executives business perspectives and operational metrics to aid in monitoring IT effectiveness. Information included on the customizable dashboard includes status of critical processes, service-level agreement attainment, and return on investment.

The Operator's Console provides comprehensive automation and includes options for both attended and unattended automation. Users have a single view of automation across the entire enterprise that provides direct interaction with running automation so network health indications can be identified and dealt with quickly.

Other options include being able to manage multiple data centers from a single point of control, expanded capabilities for managing the most complex data environments, and options for managing multiple customers from a single deployment.

Opalis Integration Server version 5.5

Integrates the variety of hardware and software in a data center and automates many of their functions

(905) 624-1260

www.opalis.com

opalis

Out With The Old

DMD Systems Recovery Offers Green Recycling & Remanufacturing

by Robyn Weisman

• • •

"BUSINESSES ARE RECYCLING and refurbishing their equipment more and more for green reasons, security reasons, or, frankly, they want a little money," says Steve Hilton, vice president of enterprise research and converged solutions at The Yankee Group. Hilton says the best remanufacturers and recyclers follow high standards when recycling or repurposing equipment. These outsourcers make sure data is properly wiped from systems and that "recycling used parts" is not code for sending a boatload of hazardous materials to Madagascar.

DMD Systems Recovery (877/777-0651; www.dmdsystems.com) offers what Cliffie McKay, director of operations at DMD, calls "green IT reprocessing you can trust." As companies adapt to more stringent guidelines for equipment reprocessing, they are going to

find that an asset management company can handle these needs for them, McKay says.

DMD Systems Recovery's primary goal is to use time-tested "cradle to the grave" processes that let the company quickly and securely manage IT asset life cycles, while complying with new green standards, such as those being implemented by the U.S. EPA (Environmental Protection Agency). DMD handles all aspects of asset disposal from deinstallation to auditing, packaging

equipment reaches DMD's facility, experts audit it and evaluate each piece by price. After the equipment is audited, any pieces that have a residual value are tested, refurbished, and then marked for resale. Any equipment that has minimal residual value is disassembled with the parts being refurbished. Equipment that fails testing is recycled according to EPA regulations and DMD's own green standards, which in some cases outpace EPA requirements.

Reselling Green IT

DMD maintains resale relationships with companies of all sizes. According to

quickly refine their techniques and make improvements to the structure and security of the company's processes. McKay says that DMD's main goal is to remain EPA-compliant while maintaining its stance as a green company. "We are always checking our current policies against current and future EPA laws to make sure that it does not interfere with our current data security policies," he says.

DMD Systems Recovery takes data security as seriously as it takes its green credentials.

As a member of NAID (National Association for Information Destruction), the company must follow strict data security guidelines. It offers customers a choice of data wiping and data destruction methods, both of which are DoD-compliant. Its facility is monitored 24/7 by ADT Security, with onsite video monitoring at both entrances and at the drive storage area. In addition, hard drives that have yet to be wiped or destroyed are locked in cages that are accessible only by DMD management at the time of data destruction. McKay says that depending on its customers' requirements, DMD will find a procedure that meets all EPA and NAID compliance requirements, as well as its customers' internal data security requirements. [P]

> ## DMD quickly and securely manages IT asset life cycles while complying with green standards.

to logistics, and data destruction to remanufacturing, says McKay.

"We continually maintain our procedures and contracts to make sure they meet with all EPA guidelines to give company executives the peace of mind that they are compliant and helping to better the world we live in," McKay explains. "Equipment that does not meet our strict remanufacturing guidelines is disassembled into usable parts or destroyed and recycled according to your security requirements and environmental regulations."

A Personal, Customized Experience

DMD Systems Recovery provides IT asset management to a host of different organizations, from small businesses to companies with more than 1,000 employees. Regardless of the amount of equipment being disposed, DMD strives to reuse and remanufacture as much of it as possible.

"DMD is different from other businesses offering similar services because we make every job we do a personal and distinct experience for the customer so that the job is done correctly and exactly to the customer's specifications and preferences. Our services are dependent on the request of the company that has hired us," says McKay.

McKay says a typical assets disposal scenario involves one of DMD's field engineers going to a customer's data center to uninstall obsolete equipment and package it for transport to DMD's facility. Once the equipment is boxed up, DMD's office staff takes care of all the logistics required to ensure worry-free shipping. Once the

McKay, end users feel comfortable buying refurbished equipment from DMD because the company's engineers have tested it and made sure it meets factory specifications.

DMD's current resale market is broad, as well: It encompasses corporations, resellers, and end users, all of which are seeking alternatives to new equipment or looking for a specific part for legacy equipment. McKay points out that many small businesses and resellers seek out refurbished equipment to save money, to maximize the value of current equipment through processing and memory improvements, and to adhere to green initiatives of their own.

DMD updates its inventory daily on its own Web site, as well as other business-to-business Web sites such as PowerSource (www.powersourceonline.com) and BrokerBin (www.brokerbin.com) that businesses can browse looking for specific products or parts.

"Our products are tested and refurbished before being put up for sale, and then are retested before they are shipped out after purchase," says McKay. "After the [end user] receives the product, there is a 30-day warranty on the piece to ensure that DMD will uphold our reputation as a green IT reprocessing company that you can trust."

DMD also makes a point of donating refurbished PCs and networking equipment to different nonprofit organizations around the globe.

Data Security Also A Priority

According to McKay, DMD's developers are constantly working on new solutions to

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Manage Unstructured Data

Keep Data Under Wraps With Pentura's Data Risk Assessment Service

AS THE AMOUNT OF DATA generated by organizations continues to grow, the lack of visibility surrounding the content and user access increases the risk to the business. At the heart of the problem is business-critical data that without classification and correct permissions poses a large risk to company security. Pentura's Data Risk Assessment

Service allows companies to identify potential risks around data security without the need to invest in expensive dedicated hardware and software tools.

The Data Risk Assessment Service begins by providing visibility of the unstructured data on the network. Once it is determined where the data resides, Pentura will consult with you to classify

the data based on three key factors: confidentiality, likely data owners, and current permission levels. Following the identification of the key data assets, Pentura is able to model and report on the usage of such data over an agreed period of time.

On completion of the audit, Pentura will then advise on the correct least privilege access

model and policy for the data in question, reducing potentially excessive permissions and providing a measurable reduction of risk for the business.

The Data Risk Assessment Service provides IT administrators with best-practice advice to assist with Active Directory users and groups, so IT staff can also address data leakage prevention on a continual basis.

Organizations can also use information in the Data Risk Assessment report to satisfy internal and external audits without the use of heavy resources or large investments.

Product ⬆ Releases

CLIENTS

■ New quad-core Opteron processors are available from **AMD**. The 1300 Series chips are intended for single-socket servers and workstations. The announced model numbers and their clock speeds are 1352 (2.1GHz), 1354 (2.2GHz), and 1356 (2.3GHz). Notable features include AMD's Rapid Virtualization Indexing, point-to-point Direct Connect Architecture, and Enhanced AMD PowerNow.

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■ **Dell** has released the Energy Smart Vostro 410 PC for small businesses. The PC starts at $599 and is designed to save buyers up to 47% in annual energy costs. Based on customer feedback, Dell says it was able to release the Vostro 410 six months earlier than previously expected. The Vostro 410's features include Intel Core 2 Quad CPUs; 512MB graphics cards; 800MHz system memory; a larger tower design with space for up to four hard drives (up to 3TB of storage); six expansion slots; four bays; and Gigabit Ethernet. Dell is also offering a new services portfolio called ProSupport that gives users customization and tailors services based on their technical expertise and business needs. Additionally, Dell announced the release of its first EPEAT Gold-certified 20-inch E207 widescreen flat-panel monitor ($259). Dell says 25% of the display's plastics are made from recycled material.

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■ **MKS** announced an integration with Eclipse, the major development environment for Java. The integration offers full support for refactoring operations; a streamlined interface and simplified MKS menus; the ability to manage change at a task level via MKS Change Packages; and the ability for developers to work offline. The integration with Eclipse is available to MKS Integrity customers using Eclipse 3.2.x- or 3.3.x-based IDEs.

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■ **Supermicro** has announced two new desktop motherboards based on Intel's "Eaglelake" G45 and G43 Express chipsets. The C2SEA and C2SEE are ATX boards with support for PCI-E 2.0 x16 cards, 1,333MHz DDR3, and 45nm quad-core Intel processors. The C2SEA (G45) features support for up to 8GB of memory. The C2SEE (G43 Express), meanwhile, supports four legacy 32-bit PCI slots.

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■ **Western Digital** announced the availability of the WD Scorpio Black 2.5-inch SATA hard drives for notebooks and portable storage devices. The high-performance hard drives are available in capacities up to 320GB. WD Scorpio Black hard drives offer 7,200rpm spin speed with SATA 3GBps interface and 16MB cache for maximum notebook performance. Scorpio Black features include IntelliSeek, which calculates optimal speed and lowest power consumption, noise, and vibration; SecurePark, which takes the recording heads off the disk surface when not in use; ShockGuard, which protects the drive mechanics and platter surfaces from shocks in daily operation; Free-fall Sensor, which is aware if the device is dropped while in use and takes the recording heads off the disk to prevent damage and data loss; and WhisperDrive, technology that keeps Scorpio Black's 2.5-inch drive quiet. WD Scorpio Black hard drives are priced up to $249.

MESSAGING & TELEPHONY

■ **ArcMail Technology** announced the release of its comprehensive archive and data management appliance, ArcMail Defender U3160. ArcMail Defender U3160 offers 16TB of storage so that companies don't have to delete email. ArcMail Defender U3160 runs as a background appliance and has a Web-based interface. It can be launched from Outlook to instantly search and restore emails, and administrators can monitor system settings and produce reports to ensure emails are being archived.

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■ **Kofax** has unveiled the TOPCALL Communication Server, which is currently being referred to as the Kofax Communication Server. This consolidated communication platform directs electronically captured inbound and outbound messages across large distributed environments and allows data to be changed from one format to another. With the Kofax Communication Server, every message can be archived for compliance purposes, and the Kofax Communication Server supports almost any type of communications format, including email, fax, voicemail, SMS, and others. Additionally, the Kofax Communication Server supports virtualization, advanced email functionality, Fax over IP (FoIP), Lotus Notes 8, SAP NetWeaver 7.0, and Windows Vista.

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■ **MX Logic** is offering three new managed-security service bundles. Each bundle includes a combination of email defense, Web defense, and message archiving services. The company says the services will help organizations support all message protection needs more easily and effectively while also saving costs. The specific bundles include Complete Security ($7.70 per user per month), which combines MX Logic Email Defense with Message Continuity, MX Logic Web Defense, and MX Logic Archive Storage Control services; Email Security & Archiving ($5.75 per user per month), which includes Email Defense Service with Message Continuity and the MX Logic Archiving service; and Email & Web Security ($2.82 per user per month), which combines Email Defense Service with Message Continuity and Web Defense Services.

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■ **Voltaire** announced the Voltaire Messaging Accelerator Software to improve

PHYSICAL INFRASTRUCTURE   MAY 16, 2008

More Power Management

Avocent's DSView 3 Power Manager Helps Admins Measure Data Center Energy Use

DSView 3 Power Manager helps managers monitor and track power consumption in the data center.

A LARGE PORTION of the cost of running a data center centers on power consumption. If companies have greater control over power monitoring and management, they can save substantially on costs.

The DSView® 3 Power Manager, a plug-in for Avocent's DSView 3 management software, addresses this need. DSView 3 software provides centralized management of all attached network devices by consolidating all views into a single interface. The plug-in enables users to collect information about the power being used by a unit, rack, or row of racks to more effectively manage power efficiency, reduce problems with outages, and reduce costs. DSView 3 Power Manager provides a calculator to help managers see power-to-dollar costs by converting the

amount of energy used from kilowatts to kilowatt hours.

Features of the plug-in include Consumption Reports, Trend Reports, Thresholds, and Alarms. Consumption and Trend Reports track energy use over user-defined time periods and monitor energy consumption over time. Users can set critical level warnings, as well as customizable actions to solve problems with Thresholds, and managers can customize Alarms to alert them when threshold levels are approached.

By integrating with sensor hubs from Uptime Devices, DSView 3 Power Manager provides environmental monitoring and reporting that includes temperature, humidity, and water levels. When paired with Avocent's PDUs, managers can also monitor and control individual outlets and outlet groups.

DSView 3 Power Manager

Power Manager plug-in: $4,995; DSView 3: $2,495

Provides detailed monitoring and reporting about power consumption for data center managers

(256) 430-4000

www.avocent.com

Avocent
The Power of Being There.®

Product Releases

performance of multicast applications running on InfiniBand fabrics. Messaging Accelerator boosts performance of messaging applications and cuts latency by up to 50% in comparison with standard Ethernet interconnect networks. Voltaire has created Messaging Accelerator to remove latency bottlenecks on the operating system level and data center fabric to raise performance levels of real-time environments. Voltaire Messaging Accelerator is currently available.

NETWORKING & VPN

■ **Ceedo** has released Ceedo Enterprise, a virtualization tool that IT managers can use to remotely control, produce, and deploy desktop workspace environments. Ceedo Enterprise helps save organizations money through portable applications, business stability, and disaster recovery. A Setup Virtualization Engine is included with Ceedo Enterprise, and it's designed to use the original standard setup files of a program to automatically execute the virtualization process. Additionally, Ceedo Enterprise allows organizations to migrate between Windows 2000, XP, 2003, and Vista, while users are able to add applications and plug-ins while keeping the workspace isolated from the machine.

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■ **Motorola** announced the upcoming availability of Good Mobility Suite version 6.0 that includes a new managed-service VPN, as well as an enhanced device management and security platform. Good 6.0, which will include Good Mobile Connection, Good Administration Center, and Good Mobile Messaging, will provide organizations with more secure, seamless, and manageable mobile access to enterprise information and applications. The new Good Mobile Connection is a managed-service VPN that delivers a seamless, managed data connection from mobile devices to data and applications behind a corporate firewall. Organizations will now be able to deploy virtually any application leveraging standard TCP protocols over the Good Mobile Connection transport with no modifications or custom coding required. The Good Administration Center will provide a unified environment for deploying and managing all Good applications, devices, security policies, and data access rights. Key new features in Good Mobile Messaging 6.0 include a customizable home screen, client APIs, and voice-activated dialing even when the device is password-protected. Good 6.0 is expected to be available later this year.

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■ **Net Optics** is set to release the iTap 10 GigaBit Port Aggregator later this month. The iTap 10 GigaBit Port Aggregator supports both Aggregation and Tap modes in the same chassis. It also has the ability to unite both sides of a link's full-duplex traffic into one stream and then propel matching copies of the stream to two 10Gb monitoring devices. The traffic moving in each direction on a network link to different monitor ports is copied when in Tap mode, which guarantees that elevated traffic loads on 10Gb networks can use one dedicated monitoring device.

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■ By pairing its Egate-100 Gigabit Ethernet aggregation gateway with its RICi-16 NTU (Network Termination Unit), **RAD Data Communications** has designed a way to deliver maximum Ethernet bandwidth over low-speed E1/T1 PDH lines. Designed as a backhaul for WiMAX traffic, as well as IP DSLAMs, the Egate-100 transports an Ethernet signal over STM-1/OC-3 links. RAD's Ethernet over PDH uses next-generation PDH standards including GFP (gener-

ic framing procedure), VCAT (virtual concatenation), and LCAS (link capacity adjustment scheme), which allows the Egate-100 and RICi-16 to offer scalable bandwidth provisioning, higher user throughput, better link utilization, minimal service disruptions and delays, and easy interoperability with third-party equipment.

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■ **SMC Networks** recently unveiled its SMCBR21VPN Barricade VPN Router, which is designed to meet the needs of small to medium-sized enterprises. The SMCBR21VPN broadband router features an integrated virtual private network, which lets users generate up to 50 secure VPN Tunnels that support PPTP (Point to Point Tunneling Protocol) and IPsec. Other features include load-balancing WAN ports, a DMZ port, and a 10/100 LAN port. The router's Dynamic VPN also lets offsite users create and delete VPN connections remotely. The SMCBR21VPN Barricade VPN Router is available at an MSRP of $449.99.

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■ **Supermicro** announced the latest in its series of A+ single-processor servers, the 1011M-UR and 1011S-MR2, as well as its high-density, energy-efficient 2-way/4-way SuperBlade (SBA-7121M-T1 and SBA-7141M-T, respectively), 1U Twin (A+ Server 1021TM), 4-Way 1U (1041M-T2+), and UIO (Universal I/O) solutions. All of Supermicro's newest solutions are optimized for quad-core AMD Opteron processors. The 1U 1011M-UR and 1011S-MR2 feature UP redundant power and four DIMM slots, with the 1011M-UR also utilizing a flexible UIO slot. The 1021TM-T+ is a 1U Twin with two DP nodes and 32 DIMM slots. The 1U 1021M-UR+ has redundant power, 16 DIMM slots, and a flexible UIO slot. The 1041M-T2+ is a 4P 1U server with 32 DIMM slots and three hot-swap SATA drive trays.

PHYSICAL INFRASTRUCTURE

■ **Panduit** has released the RJ45 Lock-in Device, a solution that secures connections to reduce network downtime, data security breaches, and hardware replacement related to theft. Protection is provided for these purposes until a special tool is used to remove the lock. The device works with most patch cords, faceplates, patch panels, IP cameras, and other IP devices. Panduit says the device is also compatible with VoIP phones, thus helping to prevent unauthorized removal and ensure 911 continuity. The device is available in six colors and complements the company's RJ45 Jack Blockout Device.

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■ **Power Distribution** introduced its latest RDS (Rack Distribution System) product line, which features both modular and integrated rack distribution solutions. Customers can opt to install Power Distribution's modular system into existing server racks or order custom integrated systems. The Modular Rack Distribution offerings consist of an enclosed panel board module with integrated CT (current transformer) strips, a BCMS (Branch Circuit Monitoring System) communication board with a local monitor, and a variety of prewired receptacles. The Rack Mounted Distribution offerings consist of two customizable systems that range in size from 30 to 15kVa.

SECURITY

■ **Aladdin Knowledge Systems** announced the availability of its Web security solution, Aladdin eSafe v6.2 Proxy. Aladdin eSafe provides real-time, intelligent Web security solutions for organizations seeking to protect

Product ✍ Releases

data, improve productivity, and enable compliance. Using technologies to analyze, detect, and defend against malicious offenders, Aladdin eSafe v6.2 Proxy provides complete inspection of HTTP, HTTPS, and FTP over HTTP traffic.

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■ The ESM E7100, PCI Logger, and C1000 are three new SIEM (security information and event management) appliances from **ArcSight**. The ESM E7100 is designed for midsized enterprises that require multivariable correlation and live dashboards; it has storage capability on one 2U standards-based appliance. The ArcSight PCI Logger is an expandable 1U appliance for medium-sized organizations with long-term log archiving needs. The C1000 gives satellite offices, MSSP (managed security service provider) environments, and retail stores a secure, audit-quality way to collect events. Prices start at $3,000.

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■ **Catbird** announced its VSA (Virtual Infrastructure Security Assessment), which helps administrators close potential gaps in security and compliance. This 30-day assessment supplies you with reports on your virtual systems' risk levels and gives you a thorough plan to minimize said risks. Clients receive their first report within 24 hours of setup.

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■ **eEye Digital Security** has announced the availability of Blink 4.0 with support for Windows Vista and Windows Server 2008. Blink 4.0 provides multiple layers of endpoint security capabilities and uses a host-based intrusion prevention engine to dynamically collect and incorporate new threat data in real time. Additionally, the product gives users centralized policy control, including over applications, system resources, and removable storage devices. In addition to virus and spyware protection, Blink also provides intrusion prevention, vulnerability assessment, and system and applications firewalls for protection from zero-day attacks, ID theft, keylogging, phishing, and malware variants. The Personal edition of Blink 4.0 is $24.95, while the Professional edition is $29 per user starting at 10 users. The Enterprise edition is $25 per user starting at 100 users.

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■ **Ensim** announced the Ensim Unify Password Manager version 2.5. Password Manager 2.5 allows organizations to adhere to strong password policy enforcement, without slowing employee productivity or using up precious IT re-sources. Requiring less than two hours for installation, Ensim's Password Manager minimizes calls to the help desk and maximizes employee productivity. With it, organizations of all sizes can decrease the number of help desk calls for password resets by more than 30%. Using a Web-based interface, IT administrators can set and strictly enforce strong password policies by establishing any number of identity challenge questions that allow employees to verify their identity and securely reset their own passwords. Additionally, Password Manager provides a complete audit trail for compliance and security initiatives. Upgrades in Unify Password Manager 2.5 include the ability for employees to reset their own passwords from the Windows login prompt. Additionally, Password Manager 2.5 supports the higher security GINA (Graphical Identification and Authentication) extensions. Ensim Unify Password Manager 2.5 can be purchased separately or as part of the Ensim Unify Enterprise Suite.

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■ **Intellitactics** has introduced SAFE XL, a new edition to the SAFE product line of security appliances. SAFE XL is designed to expose the concealed information in logs and offer features such as audit-worthy reports, risk mitigation through security monitoring, and accelerated incident response when used with the SAFE line of appliances. SAFE XL sets itself apart by providing agentless log acquirement, uninterrupted parsing, and data modules that manage the gathering and parsing of logs to predetermine how the logs will be used for filtered searches, correlation, report formation, and charting of graphics for the dashboard.

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■ **Network Box Security Response** has released three new models within its E-series of Internet Threat Protection devices, including the E-1000x, E-2000x, and E-4000x. The company says E-series products let companies consolidate network security through one product to reduce operating resources. The E-1000x covers medium-sized enterprises, while the E-2000x and E-4000x cover larger enterprises. Network Box says increases in anti-virus signatures over the last five years from 30,000 to 900,000 and increases in antispam signatures from 10,000 to 2 million are partially why a consolidated network security solution is needed, as using separate solutions that are strong enough to handle such threats is challenging and a drain on operating resources. Memory built into the E-series also means the devices can maintain a library of aged threats that may reappear.

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■ RoboForm Enterprise, a counterpart to RoboForm for consumers, is an application that facilitates secure password practices without compromising security or convenience and is now available from **Siber Systems**. The program is designed to make implementing secure password policies quick and cost-effective using alternative SSO (single sign-on) with easy deployment and immediate ROI. RoboForm Enterprise is customizable to meet a company's password policies, and users can store usernames and passwords, log in to Web applications automatically, and complete long Web forms with a single mouse click.

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■ **Trend Micro** enhanced its Worry-Free Security Solutions with an upgraded line for small businesses and e-commerce sites. New offerings include Worry-Free SecureSite, Worry-Free Business Security 5.0 (standard and advanced), and Worry-Free Remote Manager. In addition to conventional protection against spyware, viruses, spam, phishing, and inappropriate Web content, these augmented solutions address changing Web and email threats. A hosted service, Worry-Free SecureSite protects online shoppers from hackers working to exploit them by stealing credit card numbers, passwords, and other important digital information. Worry-Free Business Security 5.0 addresses evolving Web threats and the risks associated with a mobile workforce. Worry-Free Business Security 5.0 Standard is designed for businesses that have Microsoft PCs and servers and require on-premise, central management. Worry-Free Business Security 5.0 Advanced adds messaging protection. It is targeted at environments with PCs, servers, and Exchange mail servers. Worry-Free Business Security 5.0, certified for Windows Vista, is available immediately. The upgraded 2.0 version of Worry-Free Remote Manager will be available by the end of the month. Worry-Free SecureSite is a hosted subscription that is expected to be available in August.
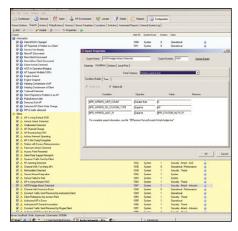
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SECURITY   MAY 9, 2008

Security On Demand

User-Generated Threat Definitions Added To Aruba Networks' RFprotect

RFprotect provides detailed information about each detected threat.

ARUBA NETWORKS' LATEST version of its RFprotect software, a product line acquired from Network Chemistry last year, brings user-created threat definitions to your WIPS (Wireless Intrusion Prevention System).

RFprotect WIPS software lets users create an attack-detection signature as soon as a vulnerability shows up. In so doing, it prevents breaches from unknown, undisclosed, and unpatched attacks. The software automatically alerts users to network susceptibilities and blocks unauthorized clients, rogue APs, and unknown ad-hocs. RFprotect also enforces organization-specific security policies and delivers compliance reports.

The RFprotect product line includes two packages, RFprotect Mobile and RFprotect Distributed. RFprotect Mobile is a wireless analysis tool that lets users locate suspect devices and conduct security audits, site surveys, and troubleshooting. It features a Site Survey Analyzer, to let users perform onsite RF surveys, and a WLAN Vulnerability Scanner, capable of identifying Wi-Fi device weaknesses.

RFprotect Distributed is a wireless intrusion detection and prevention system with complete threat detection, attack prevention, "no wireless" enforcement, and compliance reporting. It includes the TotalWatch feature, letting users continuously monitor the 2.4 and 5GHz bands, and the PolicyEnforce feature, letting customers prioritize wireless threat policies.

Users needing information about attacks can go to the Wireless Vulnerabilities and Exploits database at www.wve.org.

Aruba Networks RFprotect

Starts around $5,000

Dynamic signature updating software for WIPS helps protect against zero-day attacks

(866) 552-7822

www.arubanetworks.com

ARUBA networks

Product ✎ Releases

■ **Webroot** released Webroot Web Security SaaS (software as a service) and an enhanced version of Webroot Email Security SaaS for advanced content filtering, data leakage prevention, and compliance. Webroot Web Security SaaS protects both onsite and mobile employees from viruses, spyware, and other malware attacks while ensuring appropriate employee Web usage. Webroot Web Security SaaS is a hosted solution that is managed and updated in the cloud and requires no additional hardware, software, or personnel resources. Webroot Web Security SaaS routes all Internet traffic through Webroot's global data centers where it is scanned and filtered for threats and unwanted content while enforcing organizational policies and increasing employee productivity. Webroot Email Security SaaS includes new content monitoring and filtering capabilities that provide more control over inbound and outbound email messages and help prevent data leaks and enforce acceptable usage policies. The new features also assist in compliance with financial and medical regulations such as the GLBA, PCI/DSS, HIPAA, and state data privacy and breach notification laws.

SERVERS

■ **ScriptLogic** has announced Active Directory Management Solution, which is bundled with Quest ActiveRoles Servers and Spotlight on Active Directory, as well as ScriptLogic Active Administrator 5.0. The bundle is designed to allow complete and total management of the Active Directory life cycle, thereby increasing security, compliance, and productivity. This latest version includes support for Microsoft

Windows Server 2008. Features of Active Administrator 5.0 include centralized event auditing, recovery and Group Policy management, and delegation of Active Directory authority. Visual Active Directory health monitoring is provided by Spotlight on Active Directory. Designed benefits of Active Directory Management Solution include centralized Active Directory auditing, instant online recovery of deletions, and the ability to undo any Active Directory changes. Active Directory Management Solution is priced at $30 per user for between 500 and 5,000 users.

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■ **Verari** announced additional support for Connexxus, a desktop consolidation platform for data-intensive digital environments that require high-end visual applications by utilizing independent blade-based computing and storage solutions. Connexxus allows users to view displays in dual high resolution (1,920 x 1,200) using Teradici's PC-over-IP technology. When combined with Verari's BladeRack 2 X-Series (WS1160 and WS2260) blade servers that support quad-core Intel Xeon 3200 Series processors, Connexxus supports graphically intense applications. Connexxus also supports fiber and copper connectivity, dual high-resolution monitors, mounting features, and Broker Support to connect to a wide range of back-end systems and clients in a secure environment.

STORAGE

■ **FileTek** has announced its new data classification solution, Trusted Edge Desktop Suite for Microsoft SharePoint. The Trusted Edge solution integrates with Microsoft Office SharePoint Server 2007 to

enhance the records management functionality of SharePoint and help companies organize effective e-compliance and data management strategies. It addresses the latest regulatory developments such as FRCP, Sarbox, HIPAA, and SEC.

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■ **Imation** introduced the first 500GB native-capacity cartridge to its line of RDX removable disk cartridges. The RDX system, a low-end tape replacement solution, is designed to provide small and medium-sized enterprises with easy and reliable backup, data security, and expandable storage. Now featuring the largest capacity available today, each RDX disk cartridge houses a high-capacity mobile 2.5-inch hard drive in a shock-resistant design to allow the cartridge to sustain a fall from up to 1 meter. The cartridge is inserted into a dock, which can be connected internally through USB or SATA or externally with USB. The fast transfer rate of up to 45MBps reduces the typical data backup time and allows the user to back up 150GB of data in less than an hour. Unlike tape, RDX technology accesses the files in milliseconds, allowing for instant data retrieval. A complete data protection solution, the RDX system also includes fully functioning EMC Retrospect software. Imation's RDX Removable Hard Disk Cartridge is currently available.

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■ **NetCom USA** has announced a data storage system that is available with external PCI or eSATA interfaces and capacities up to 8TB. This new data storage system features transfer rates of up to 400MBps; support for platforms such as PC, Mac, and Linux; dual hot-swappable power supplies; and secure, cost-effective storage expansion for networks. Finally,

the data storage system adds security by providing removable and lockable drive trays.

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■ **Network Instruments** introduced the GigaStor 2TE. This 2TB appliance is designed to save and capture all network packets and transactions for replay, troubleshooting, and reporting. Data mining, network forensics, and data retention compliance is where GigaStor comes into play. It also offers long-lasting, real-time, and post-capture network statistics across multiple topologies and technologies. GigaStore 2TE was created in order to allow organizations the ability to boost the capabilities of midmarket networks with budget restrictions.

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■ **Nexsan** introduced the SASBoy, a high-density, Serial Attached SCSI storage solution that provides fast I/O response for searching and retrieving small fixed-content files. SASBoy features MAID 2.0 functionality through Nexsan's AutoMAID (Automatic Massive Array of Idle Disks) that reduces power consumption without reducing application performance. Nexsan SASBoy is OS-independent and provides connection of both iSCSI and Fibre Channel, while offering 14 300GB SAS drives in 3U for 4.2TB of storage. SASBoy is currently available.

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■ RDX removable disk cartridges from **ProStor** are now available in a capacity that's two-thirds larger. The new 500GB cartridge will be sold by Tandberg, Imation, and their OEMs. RDX now comes in capacities ranging from 80GB to half a terabyte. With broad backup software compatibility and an archival, 30-year data

Product ✍ Releases

retention rating, the system provides the portability of tape and the speed of disk.

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■ **QNAP Systems** announced a new storage solution, the 1U, 4-bay rack-mountable NAS server TS-409U. The new server enables business applications such as storing, backing up, sharing, and archiving critical information with its Linux-embedded system with 500MHz SoC CPU and 512MB DDR2 memory. The TS-409U is designed for expandability and upgradability and supports multiple file-sharing protocols for users to share files across Linux, Unix, Mac, and Windows platforms. Other features include online RAID capacity expansion, online RAID level migration, hot-swap design, and abundant server functions.

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■ Rackspace DNAS (dedicated network-attached storage), a scalable file-based storage system, is now available from **Rackspace Hosting**. Built on the NetApp FAS2000 storage system, Rackspace DNAS is designed for large enterprise storage needs. It's available in multiple flexible configurations, each outfitted with reliable, secure data protection and instant backup and recovery. Customers can purchase varying sizes of storage, as Rackspace DNAS is built on a modular architecture. Rackspace DNAS supports both Windows and Linux platforms. Other additions to Rackspace's storage portfolio include CloudFS, a Web-based storage offering; DAS (direct-attached storage) for low-cost, entry-level needs; and a SAN for block-based storage.

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■ The Savvio 10K.3 hard drive, a high-capacity, small-form factor (2.5 inches) enterprise drive, is now available from **Seagate**. Equipped with self-encrypting options for enterprise servers and storage arrays, the Savvio 10K.3 is designed to run at 70% less power with 60% greater performance density than larger 3.5-inch drives. Features of the drive include up to 300GB of capacity, reliability of 1.6 million hours MTBF, and an advanced SAS 2.0 (6Gbps data rate) interface.

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■ **Sun Microsystems** announced the latest addition to its Eco Innovation products and services: Sun solid-state disks, which offer three times better performance at one-fifth the energy consumption of traditional disks. Sun's flash SSD technologies are ideally suited to the demands of MySQL database and other enterprise applications. Also, Sun's industry-standard servers and services are ready to support the new flash-based products today. Sun will release flash-based products in the second half of this year.

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■ **Winchester Systems** launched the FlashDisk SX-1300 Series SAS/SATA storage array, which is ideally suited to the demands of database, manufacturing, financial, and transaction processing applications. FlashDisk SX-1300 features 12 small-form factor 2.5-inch disk drives, supports four tiers of storage on one set of RAID controllers, and offers single or dual redundant controllers in a compact 1U enclosure. The FlashDisk SX-1300 also supports up to four expansion shelves for up to 12 and 16 SAS drives or SATA 3.5-inch disk drives, respectively. The FlashDisk SX-1302S and SX-1394S models coupled with 73GB disks are available starting at less than $10,000.

Application Services View

NetScout's nGenius K2 Provides Visibility To See Status At A Glance

You can determine network status at a glance.

ASSESSING THE HEALTH of applications and services on a network is of utmost importance. However, relying on incomplete information leaves critical gaps in the information flow. NetScout's nGenius K2 uses packet data to acquire network and application monitoring information. The packets contain a rich source of performance data.

nGenius K2 provides network monitoring professionals with a clear picture of network and application health with Service Views, complete with icons for each application service that bear the number and color-coded warnings of various performance levels. Further information can be gleaned from flow and packet details under each application service. The entire interface is designed to help reduce Mean Time to Repair/Restore. The

Virtual Service Network Map uses red, yellow, and green indicators to show where a degradation has occurred. Service Summaries under Service Views offer status snapshots with charts and tables to allow managers to view details on service states over time.

Other key features include Early Warning System and nPN (nGenius Performance Network). Early Warning System leverages NetScout's analytics engine and key performance indicators. nGenius K2 learns normal behavior patterns for key performance metrics and alerts network monitors when significant changes occur. Early warnings can go directly to most network management consoles.

The nPN service displays service views and early warnings of the monitoring application itself and all related devices, including nGenius Performance Manager servers, nGenius Probes, and nGenius InfiniStreams.

NetScout nGenius K2

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Provides at-a-glance status and early warning of performance degradations

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Virtualization Management

Quest Software's Foglight Monitors Impact On Applications, Users

Foglight manages all views of the virtual environment and correlates the virtualization activity with the rest of the application environment.

VIRTUALIZATION management has become a main focus of many businesses and small enterprises. Application virtualization and application streaming need to be monitored and seen from the end user's point of view.

Quest Software Foglight version 5.2 can help monitor the impact of virtualization on databases, applications, and end users while correlating the usage of resources across physical and virtual platforms.

With performance efficiency being a key factor in overall productivity, Foglight ensures administrators can move to and manage a virtual infrastructure with ease.

The management of mission-critical applications within a virtualized environment is extremely important. Most of the time, problems are not recognized or dealt with properly. Foglight helps companies avoid server downtime and the possibility of service disruptions. The newest version of Foglight adds support for VMware.

Foglight monitors the entire virtual infrastructure from the physical servers to the virtual machines and gives organizations multiple resources and options to help with their overall application management. Using Foglight, companies can contain alarm storms, track virtual machines, view the impact of many virtual machines, receive root-cause diagnostics, monitor VMotion events, and customize views for IT operations, data center teams, and management.

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Application management solution with VMware support

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Simplified Mobile Solutions

Wyse Viance Integrates With XenDesktop To Improve Desktop Virtualization

AS GLOBALIZATION becomes more important and more professionals are on the move, desktop virtualization has increased. But delivering end-to-end desktop virtualization has its challenges. To help meet the needs of this new mobile workforce, Wyse has introduced the Wyse Viance family, designed to work with the Citrix XenDesktop product line.

The Wyse Viance family is a sleek, fanless, diskless set of desktop appliances that uses just 13 to 19 watts of power. High-quality video is achieved through locally decoded multimedia, using local processing power. Drivers and USB ports are then virtualized back at the server, allowing IT personnel to have granular control over which USB peripherals are used, while no new drivers are needed on these devices.

Citrix XenDesktop uses a delivery protocol, ICA (Independent Computing Architecture), which gives thin-client devices, such as the Wyse Viance, PC-like responsiveness to any site or client. Additionally, IT personnel can assign users to dedicated and pooled virtual desktops through XenDesktop, controlling the active and inactive virtual desktop connections. This improves the reliability of the connection for the users.

The Viance Pro Mobile, suited for the mobile professional, is one of the clients featured in the Viance family of appliances. The Viance Pro Mobile offers 802.11/b/g/n wireless support, along with a 15.4-inch WXGA TFT LCD screen, full multimedia performance (supports WPF-enabled apps), and Gigabit network connectivity for access to quick LAN connections.

Wyse Viance

Starting at $399

Family of desktop virtualization appliances that has integrated the Citrix XenDesktop to help meet the demands of the mobile professional

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Protecting The Perimeter

MX Logic's MX Perimeter Defense Weeds Out Email Attacks

SPAM, IN ITS various forms, is a network's worst enemy. Not only does it clog bandwidth and bloat email traffic loads, but spam emails can also contain viruses, worms, and other malware. The best way to deal with spam is to keep as much of it as possible outside the network to begin with, thus limiting the resources needed to dispose of it and the risks involved with letting it land in employee inboxes.

MX Logic's MX Perimeter Defense, part of the comprehensive MX Logic Email Defense Service, addresses this issue. Using a database maintained by the MX Logic Threat Operation Center, MX Perimeter Defense compares all incoming mail with a list of known spammer IP addresses to block more than 60% of unwanted email traffic.

Further filtering of worms and viruses is facilitated by Perimeter Defense's WormTraq virus engine. If any message is found to contain malware or has an IP address that is flagged by the Threat Center, the connection will be dropped so the message never penetrates the network.

Anonymous connections are also a threat to a network, as they can facilitate DHAs (Directory Harvest Attacks), DoS attacks, and malicious email attachments. To solve this problem, a user's Internet-facing mail servers point to MX Logic, which conceals them from such attacks. By waging the war against spam at the perimeter, valuable bandwidth is spared for the network to operate more efficiently and with less strain.

MX Perimeter Defense service requires no long-term service agreements, instead operating on a month-to-month basis for users. Live 24/7 phone and email support comes as part of the service. For additional fees, users can add a number of features to the basic service, including outbound filtering, double or triple antivirus, MX Logic Message Continuity, and MX Logic Fail Safe Service.

MX Logic MX Perimeter Defense

As low as 16 cents per user, per month; add-on services available for an additional fee

Protects email traffic from spam and malware, bolstered by live customer support

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Rugged, Portable Computer

NextComputing Vigor Evo HD Offers Added Protection, High Performance

WHEN MOST people think of rugged, portable computers, they usually envision the most dangerous jobs or the harshest environments. Many portable computers are fragile and susceptible to the elements, so valued information or even the most basic work functions need to have added protection. NextComputing's Vigor Evo HD addresses some of these issues.

The Vigor Evo HD is a flextop, high-performance mobile machine that utilizes the FleXtreme architecture. It features open standard components, support for COTS software and hardware, multicore processors, high-capacity storage, multiple OSes, and I/O functionality. This system is designed for applications that require a powerful workstation in a portable form.

The Vigor Evo HD is about the size of a briefcase and weighs about 13.5 pounds. The chassis offers a mounting kit that includes rugged hooks that can be used for the shoulder strap. This offers flexibility and ease of use in most environments.

The system's modular processor boards support up to two single, dual, or quad-core processors. The system offers up to three 3.5-inch 1TB drives or 13 200GB hard drives. It also includes internal RAID 0, 1, and 0+1 capabilities.

The Vigor Evo HD has an integrated 17-inch LCD with a disposable protective screen for glare reduction and added protection. The computer also has up to four PCIe or PCI-X 64-bit slots for single- or double-width cards. The internal chassis is mounted on rubber bumpers so there is no metal-to-metal contact with the outer chassis.

NextComputing Vigor Evo HD

Rugged, small, and lightweight computer built to handle powerful applications

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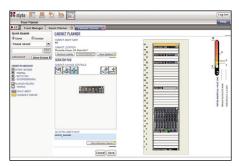
Reduce Operating Costs

GDCM nlyte Optimizes Personnel, Processes & Physical Resources

nlyte lets you manage changes affecting power, cooling, space, and network physical infrastructure.

IT PERSONNEL are facing enormous problems managing a dynamic data center environment. Impacts of implementations, consolidations, virtualization, the retirement of IT assets, and even basic IT changes lead to the risk of overheating, increased power costs, new capital equipment expense, cable infrastructure road blocks, system downtime, and security risks that result in increased operational cost.

The nlyte software suite from GDCM (Global DataCenter Management) optimizes critical data center physical assets by visualizing, modeling, and enabling immediate feedback on planned and implemented changes to facilities, equipment assets, racks, devices, cables, connections, and power resources. The software lets users trend and analyze how current and planned changes impact redundancy, power, cooling, space, network, and cable capacity.

nlyte solves complex problems related to managing physical capacity, allowing the delay of capital expenses, and reducing operational costs related to power, space, and human capital. Companies using nlyte today are gaining the ability to model the data center, establish unified procedures and processes, integrate multiple systems, understand IT changes prior to implementation, and predict how power and cooling supply and demand will effect their entire global data center fabric.

Global DataCenter Management provides enterprise software products to support strategic planning and operation of some of the largest data centers in the world. The company, founded in 2003 and headquartered in California and London, England, is uniquely positioned to provide automation and analytic expertise, focusing on the physical infrastructure needs of medium to extremely large data center environments.

Global DataCenter Management nlyte

Lets you visualize, model, and manage your complex data center environment

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SpectraGuard Online gives the user reports showing possible and imminent threats.

WITHOUT THE RIGHT wireless vulnerability management, no network is safe. As wireless becomes a business utility, the question is not how to keep wireless out but how to reap its benefits and efficiencies while managing your vulnerabilities. SpectraGuard® Online is ready to meet the need for low-administration, high-value security services. It's the most accurate, the most complete, and, at $2 a day, the most affordable wireless security solution available.

Scanning your airspace with handheld devices gives you only a point in time and is time-consuming and expensive. AirTight is the only wireless vulnerability management company to offer a flexible, end-to-end SaaS solution that gives customers visibility into their wireless security posture and choice in how they manage it. SpectraGuard Online is offered in three modules to protect your network from wireless threats and help you meet regulatory requirements—vulnerability assessment, regulatory compliance, and vulnerability remediation. The key components that make this possible are no capital investment, a predictable monthly service fee, and, with updates, no product obsolescence.

If you have been scanning your airspace with handhelds—or worse, not scanning at all—you can now have a cost-effective, automated solution in the SpectraGuard Online.

AirTight SpectraGuard Online

$50 per sensor per month

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Multilayer Security For Memory Cards

SPYRUS' Hydra Privacy Card Series II Digital Attaché Expands Security Coverage

DISK ENCRYPTION has been a valuable feature for hard disks, removable hard drives, and even USB flash drives for quite a while. Yet for other forms of storage, such as miniSD/SDHC or microSD/SDHC memory cards, their contents have generally been unprotected. The SPYRUS Hydra PC (Privacy Card) Series II Digital Attaché expands security coverage to removable media.

Digital Attaché comes in a USB flash drive form factor and can be used to store Vista BitLocker keys and other encrypted files. Its primary role, however, is as a host device for removable mini- and microSD/SDHC cards.

Security on the Digital Attaché is hardware-based, full-disk encryption, with an additional level of protection possible via file-by-file encryption. The device can be configured for multiple drives, so one compartment can be encrypted while another can have open access. Digital Attaché can write encrypted files not only to a miniSD/HDSC memory card, but also to a computer hard drive, a portable drive, and even an Internet-accessible storage drive.

Membership on a share list is required for access, including for specific files; a digital certificate, called a Hydra PC identity, can be created for specific users, who can then access files with a PIN. Digital Attaché can be configured to limit access to only certain workstations or workstation groups even if a user has a valid PIN.

Digital Attaché uses the strongest commercially available cryptographic algorithms and key lengths to secure data, including AES-128/192/256.

SPYRUS Hydra Privacy Card Series II Digital Attaché

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Secure storage with full-disk and file-by-file encryption for miniSD/SDHC or microSD/SDHC memory cards in a USB flash drive form factor

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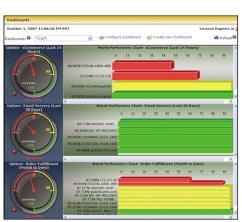
Keep An Eye On IP-Based Devices

CITTIO's WatchTower 3.1 Lets You Monitor It All

WatchTower 3.1 enables SMEs to monitor nontraditional devices, such as HVAC systems and point-of-sale terminals.

WITH THE VARIETY of IP-based technology in organizations, it can be difficult to monitor all of the devices that use your network. To help you monitor the equipment beyond the data center, WatchTower 3.1 includes support for products from 1,200 manufacturers. WatchTower 3.1 enables a "single-pane-of-glass" view into the performance of all network components from a single Web-based console.

WatchTower 3.1 offers a number of new enterprise-class features to address the needs of the real-time data center. New capabilities include root cause analysis, topology discovery and mapping, and native monitoring of database health and latency. Root cause analysis examines virtual OSes and containers, helping eliminate alarm "storms" to increase event management efficiency. The topology discovery and mapping tools can be automated across all nodes (including virtual machines), and WatchTower 3.1 can automatically build diagrams of root cause analysis relationships. Version 3.1 also features a Performance Management Database for analyzing performance data from both WatchTower and external sources.

IT staff and business managers can now fully automate the monitoring of both traditional and nontraditional devices to eliminate separate monitoring services. WatchTower 3.1 automatically discovers, monitors, and displays any performance or availability problems with scalability up to thousands of nodes.

CITTIO WatchTower 3.1

Perpetual license: Starts at $200 per node
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Allows you to monitor the components in your IT infrastructure from a single, Web-based console

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OPINIONS
INFO-TECH • INSIGHT

Information & Shipping Containers: Lessons For HP & EDS

On May 12, 2008, HP announced its intentions to acquire EDS. At $25 per share, the deal is worth $14 billion. In many ways, the deal makes sense. It's about industry consolidation. It's about shifting to services and improved margin. It's about reconciling customer portfolios to facilitate the cradle-to-grave experience. But this deal is also about something far more interesting. It's about economies of scale that occur when services become generic.

Lessons From Shipping Containers

Commoditization removes competitive advantage. The formula is basic: The cheapest supplier that meets the required level of quality wins. Once the standards for product and service are established and agreed to by all parties, then the only way to profit is scale. The best example comes not from the world of technology but from the decidedly low-tech world of containerized shipping.

The idea of containerization has been around for a long time. Standard containers were used for barging coal in the 1780s. Rail companies began using containers in the 1920s, and the U.S. Department of Defense mandated standard CONEX containers following World War II. The modern container shipping industry began, however, in 1956 when the trucking entrepreneur Malcom McLean strapped 58 containers aboard a converted tanker called the Ideal-X. At the time, competitors viewed McLean's innovation as a novelty.

Fifty years later, the world has changed. Containers have replaced the seamy world of stevedores and break-bulk shipping

GEORGE GOODALL

AUTHOR George Goodall has been in the information technology field for over 10 years. Prior to becoming a research analyst, Goodall was a consultant with the enterprise software company i2 Technologies. Since joining Info-Tech, Goodall has written on a variety of IT topics, including Internet telephony, NAS, and enterprise applications.

immortalized by Marlon Brando in "On the Waterfront." Today, containers move about 90% of nonbulk cargo. From McLean's 58 containers, the world now has more than 18 million containers. The largest ships can carry more than 14,000 20-foot containers. These "post-Panamax" ships are too large to fit through the Panama Canal but are crucial for transporting consumer goods from Asia to Europe and North America. The net effect of this growth has been to reduce shipping costs so much that they are now essentially a nonfactor in consumer decisions.

The history of containerization is stormy. Its dominance required huge concessions from organized labor, the construction of major port facilities, and—most importantly—the creation of a whole series of ISO standards that govern the sizes of containers (R-668), identification markers (R-790), and the corner fittings that enable containers from different companies to fit together (R-1161). These standards converted a tsunami of individualized cargo to a controlled flow of identical containers. The messy world of leaking barrels and creaking pallets gave way to a stream of routable packets.

From The Shipping Dock To The Data Center

HP and EDS are taking the next step on a very similar journey. In 1958, Malcom McLean found a way of converting messy cargo to standard packets. HP and EDS are taking the next step by converting messy services to standard packets. The delivery of outsourced services is currently very much like the break-bulk shipping of the early 1950s. Each customer has unique demands and wants individualized service-level agreements. In many hosting arrangements, the customers also have highly individualized combinations of servers and operating systems that must be carefully accommodated in the looming hulls of data centers.

Things are changing. The delivery of outsourced services, particularly hosting, is becoming increasingly standardized. Service-level agreements are more homogenous, and audit standards such as SAS 70 Type II have emerged to promote standardization across service providers. Even the vagaries of technical architectures are succumbing due to the recent popularity of Web services and software as a service. Outsourcing is now about the delivery of a standard service. And whoever has the most scale will win.

The rise of container shipping didn't go smoothly for all parties. The industry was wracked by the whipsaw effects of oversupply common to all immature industries. Interest rate increases and the oil crisis also had a dramatic impact on companies so dependent on major capital investment and operating costs. But one constant remained as the industry grew: The big got bigger, and the small disappeared. The most dramatic impact has been on customers. Not using containers for nonbulk cargo is now unthinkable, and the costs involved would be astronomical.

HP's impending acquisition of EDS is certainly about scale, and technology, and service, and margin. But it also heralds a new wave of consolidation as the major technology firms react to increased standardization. The strategy worked for shipping, and it will work for tech. Just as economic realities have forced customers to use containerized shipping, IT shops must inevitably turn to standardized hosting. HP and EDS now have the scale to survive the inevitable problems of oversupply.

Send your comments to infotech@processor.com

PHYSICAL INFRASTRUCTURE   MAY 2, 2008

Eliminate Hot Spots

Cool Smarter With Opengate SiteX EC

MOST DATA CENTERS have hot spots. If you don't address hot air recirculation in a general cooling solution, the resulting inefficiency can cost you big bucks.

The new SiteX EC Containment Cooling systems from Opengate are intended to capture waste heat from IT equipment and give it a direct path back to the CRAC/H (computer room air conditioner/handler). Working in conjunction with your data center's existing mechanical infrastructure (the system fits on any equipment rack), SiteX EC uses a closed-loop control process and dynamic airflow scaling to route heated air directly to your facility's heat exchangers. Air is drawn out of the IT equipment through redundant, replaceable fan units, and hot air is ducted back to the CRAC/H units.

By keeping the hottest air in the room secluded from cooler air, the volume of delivered air can be reduced, and the temperature of the main air supply to the data center can be raised. That means that less energy is spent on cooling, which translates into lower power bills. Another benefit of segregating intake and exhaust air is improved uptime and component life, as cooler equipment typically lasts longer and runs with fewer problems.

The SiteX EC Containment Cooling system is ideal for a data center using a HDHC (high-density heat containment) configuration. It can work well with any method of cool air supply, including raised flooring.

The scalable system is available with fan units rated at up to 10kW (1,100cfm) or 20kW (2,000cfm) per rack. It offers remote management, airflow monitoring, and alarm notification over Ethernet.

Opengate SiteX EC Containment Cooling

Starts at $1,699

Cools your data center better, for less money, while delivering predictable temperatures to IT equipment

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STORAGE   MAY 2, 2008
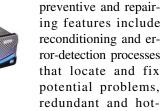
Storage Done Right

Xiotech's Emprise 5000 & 7000 Offer Reliable & Flexible Storage

STORAGE IS FUNDAMENTAL to any company, but there's really no alternative to storage systems composed of disk arrays in simple enclosures, right? Wrong. Xiotech has an alternative based on the company's patented ISE (Intelligent Storage Element) technology. The new Emprise storage systems employ one or more ISEs that consist of an integrated environment of single- or dual-sealed DataPacs. Each DataPac has up to 8TB of storage capacity, and each ISE provides dual managed reliability controllers, which locally manage cache, data protection processes; dual power and cooling units; and dual battery modules.

Xiotech's new Emprise 5000 direct- and switch-attached storage system and Emprise 7000 SAN system employ one and up to 64 ISEs, respectively, to virtually eliminate the need for service. The Emprise storage systems reduce heat and vibration, which are largely responsible for drive failures. Other preventive and repairing features include reconditioning and error-detection processes that locate and fix potential problems, redundant and hot-swappable components, self-healing processes that let each DataPac recover from a majority of failures, spare-in-place technology that automatically rebuilds data to another area when needed, and incremental data recovery for faster rebuilds.

Emprise 7000 supports the Web Services-based ICON Manager interface, optimal storage virtualization, distributed cluster architecture, intelligent provisioning, and data replication solutions.

Emprise storage systems can also scale from 1TB to 1PB. Storage Performance Council tests also verify the ISE's performance advantage over traditional storage.

Xiotech Emprise 5000 & 7000

Emprise 5000: starts at $21,000

Emprise 7000: starts at $85,000

An alternative to traditional disk-based storage systems that virtually eliminates the need for service

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XIOTECH

Green Initiatives: Hire A Consultant?

Green IT Can Yield Tangible Financial Benefits, But Specialized Expertise Can Facilitate Project Development

by Kurt Marko

• • •

GREEN MAY BE GOLDEN for a new class of IT service providers aiming to capitalize on growing environmental awareness by enterprises, according to a recent study by Forrester Research. While last year's media blitz surrounding Al Gore's "An Inconvenient Truth" undoubtedly changed perceptions, companies that study ways to green their organization find that there are significant financial rewards for increasing energy efficiency, minimizing waste, and reusing or recycling equipment. Given the energy consumption required by today's information economy, it comes as no surprise that IT is ground zero for many green initiatives. Forrester analyst Christopher Mines finds that, "Corporate IT organizations are feeling increasing pressure and finding growing opportunities to improve their sustainability practices."

The realm of green IT activities is still ambiguous and, according to Mines, may range "from an energy-efficiency initiative that provides a cost-cutting benefit to a product differentiator for environmentally conscious consumers." Greg Schulz, principal at StorageIO and its affiliated Web site, www.greendatastorage.com, says other areas falling under the rubric of green initiatives include recycling, reuse, and/or disposal of electronic components and hazardous materials and comprehensive corporate environmental initiatives to reduce greenhouse gas emissions.

In light of the diverse and fluid nature of green IT and the specialized knowledge outside traditional IT domains it entails, companies pursuing green initiatives are looking to consultants and service providers for help. These companies are responding in kind by adding resources, building expertise, and augmenting their service portfolios. Forrester terms this new market "green IT services" and defines it as "consulting services that help enterprise IT organizations reduce their companies' environmental impact by assessing, planning, and implementing initiatives that make the procurement, operation, and disposal of IT assets more environmentally responsible."

Drivers Of Green IT

The specter of global warming, having renewed an environmental zeitgeist not seen since the birth of Earth Day, is undoubtedly responsible for putting green initiatives on the corporate radar; however, there's a much more quantifiable reason IT departments are going green: power consumption. Increasing server density, coupled with today's power-hungry quad-core processors, means many data centers are simply running out of electricity.

According to Schulz, companies are finding their facilities strapped for electrical power and unable to accommodate future expansion, thus necessitating significant efficiency improvements. Aside from maxing out electrical infrastructure, increasing electricity rates mean that power is a significant expense for large IT departments.

Forrester's Mines finds the three major drivers of green IT initiatives are cost savings imperatives (of which power and cooling efficiency are paramount), overall corporate green initiatives, and technology refresh opportunities.

The numerous drivers of green IT projects are fueling demand for consultants and service providers that can fill knowledge and experience gaps in the corporate IT department. According to a recent survey by Forrester's Mines, "6% of the 130 respondents told us they were currently using a green IT services provider, another 6% were planning to, and 18% were considering hiring one."

Businesses Leading The Way

Reducing operating costs through a green IT efficiency program can make sense for any business, but U.S. government agencies are leading the way, according to Schulz. Mines concurs, noting that overseas, "The public sector, especially in the UK, faces strict data and reporting requirements for carbon emissions and energy usage. Similar regulations are likely to spread across the EU, and then to North America, over the next several years." In the United States, agencies are responding to Executive Order 13423, signed by President Bush in January 2007, which requires agencies to reduce so-called energy intensity by 30% by the end of 2015.

Several other industries are also ripe for green initiatives, according to Mines. Energy and natural resource companies are planning for eventual carbon emissions regulation, while IT-intensive sectors including "financial services, telecom, and pharma were often cited in our interviews as companies facing limits on growth due to power provisioning, cost, and/or tight real estate in their data centers," says Mines. Finally, he sees big consumer brands and retailers jumping on the green bandwagon in a desire to establish and enhance their social responsibility credentials.

Available Green Services

A green IT program logically follows three phases, according to Mines: assessment, planning, and implementation (see the "Three Phases Of Green IT Services Engagement" sidebar). Assessment services entail creating an overall green IT plan and developing an ROI model. The detailed planning phase aims to identify specific green initiatives from a menu including equipment procurement, recycling, and reuse to improve data center efficiency. It also can entail positioning IT to support a company's overall green strategy through such things as telecommuting, building automation, or supply chain optimization.

There are a variety of sources for green consulting and support, but given the nascent nature of the field, the market is still quite fragmented. Schulz and Mines both acknowledge that the first and easiest source of green assistance is from the services arms of vendors, with Schulz advising IT managers to invite systems and facilities vendors to do a power assessment on your installation: "They can come in and give you some free advice on what they see as low-hanging fruit." Most major IT systems integrators and consulting groups also have green expertise and, according to Mines, can bootstrap broader corporate green programs and facilitate IT's integration into the bigger picture.

Service providers and consultants can marshal specialized expertise that often doesn't exist in an IT organization. Mines says green IT service providers are able to help businesses assess their green IT strategies through the development of an overall green IT plan. They can also perform energy consumption and carbon emissions audits and develop targets for each, perform overall environmental analysis, navigate the maze of regulatory compliance requirements, and model and measure the ROI of green initiatives. Service providers can also assist with operational planning of green procurement policies, e-waste recycling programs, data center design and efficiency enhancement, supply chain optimization, design of environmental management systems, and investigation of carbon trading and offsets. As businesses move to the implementation of green projects, Mines notes that service providers have particular strength facilitating deployment of virtualization, server consolidation, and thin-client VDI (virtual desktop interface) projects and in the installation and configuration of power monitoring or IT infrastructure management software.

Three Phases Of Green IT Services Engagement

Green IT services engagements, like most consulting work, entail specific projects tailored to clients' circumstances, goals, and budgets. Nevertheless, it's possible to characterize the general shape of green IT engagements in terms of three interlocking phases: assessment, planning, and implementation. Assessment, the crucial first step for any company, involves relatively small, short-duration projects. Developing a strategic plan comes next. Forrester estimates that 50% of companies that hire consultants for assessment will move into the more detailed planning phase, and 75% of those companies will move to implementation, in which projects are typically much longer and more costly.

Assessment
$50,000/six weeks
Create a baseline of energy usage and carbon footprint. Sketch an overall approach to green IT including ROI.

50% of clients that do assessments move to planning

Planning
$250,000/12 weeks
Develop detailed roadmaps for specific green IT initiatives like procurement, data center optimization, and recycling.

75% of clients that do planning move to implementation

Implementation
$1 million/80 weeks
Choose and implement specific technologies for virtualization, power and cooling, systems management, etc.

SOURCE: "THE DAWN OF GREEN IT SERVICES: A MARKET OVERVIEW OF SUSTAINABILITY CONSULTING FOR IT ORGANIZATIONS," BY CHRISTOPHER MINES, FORRESTER RESEARCH; MARCH 2008.
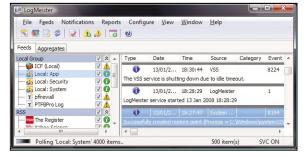
Centrally Monitor Log Data

Technology Lighthouse LogMeister 3.0 Can Warn, Take Action

AS TECHNOLOGY GETS more complex, it's refreshing when network administrators can use a product that simplifies their tasks. Technology Lighthouse LogMeister 3.0 offers a comprehensive way to centrally monitor and analyze logs.

LogMeister will monitor your network logs in real time or according to a specified schedule.

The main LogMeister interface is designed to be user-friendly, with information presented in an easy-to-read format.

Logs include Windows event logs, text logs, RSS feeds, and XML. Users will be warned when significant events occur in the network, and LogMeister will control the central archiving of log data. LogMeister helps meet audit requirements, while also helping users with data analysis, early detection of security breakdowns, and hardware malfunctions. Other features include application and system debugging, error management throughout networks, monitoring of Web server log files, and the scrutinizing of RSS feeds.

As LogMeister analyzes data, it filters the data is read from the source, sorting out noise events. LogMeister looks for certain criteria in the data it inspects and then reacts by taking action such as producing an on-screen alert, sending an email, running a script, or creating a separate log.

LogMeister 3.0 adds features such as custom reports and outputting and bulk event feed created by an external file.

Technology Lighthouse LogMeister 3.0

$179.99

Centrally monitors and analyzes any log generated by an organization's systems and applications

++44 (0) 141 891 5884

www.tlhouse.co.uk/LogMeister

LogMeister
Log Monitoring and Notification

The Patch Window Is Closing

Protecting Vulnerabilities Is Tougher Than Ever

by David Geer

• • •

WHEN A SECURITY HOLE is uncovered, there is a brief span of time, known as the patch window, in which an SME can patch the system before an attack is unleashed. But according to Scott Montgomery, vice president of product management at Secure Computing (www.securecomputing.com), that window is quickly disappearing. Now, attackers are discovering security holes and writing attacks almost instantly, causing the patch window to shrink at an alarming rate.

IT departments that are already heavily burdened with efforts to protect their systems are experiencing a lot of frustration over the disappearing window, due in large part to the increasing dexterity of attackers. Though the odds may seem insurmountable at times, there are measures IT departments can take to help keep the window open.

The Closing Window

Today, attackers use exploit code provided by tools such as Metasploit, which helps people create exploits (attacks) quickly and easily, and Fuzzers, which attack servers with millions of permutations of code searching for weaknesses.

"The Fuzzers report back how you should attack the server to get through," says Montgomery. With these tools, attackers find any number of vulnerabilities and create and deploy attacks before their patches are released.

Tools such as these are helping attackers create about a hundred new viruses every few minutes, according to Montgomery, and security software can't keep up. Plus, SMEs can't always apply patches right away because attackers are finding vulnerabilities in the patches themselves and attacking those, too, according to Monte Robertson, president of Software Security Solutions (www.softwaresecuritysolutions.com). This leaves enterprises vulnerable to at least some attacks no matter what they do.

Employ Patch Management

SMEs may need to lock down systems more tightly, which will severely cut system usability, or be more aggressive in patching systems using patch management software, according to Roel Schouwenberg, senior antivirus researcher at Kaspersky Lab (www.kaspersky.com).

However, patches can create their own issues. Sometimes an in-house application relies on an older version of software in order to work, according to Robertson. Patching the vulnerability, then, essentially breaks the application. Patches can also have their own security vulnerabilities, which attackers are learning to find and exploit, according to Darril Gibson, IT trainer and author of several Microsoft exam guides published by Wiley, including "MCITP: Windows Server 2008 Administration Study Guide."

"To prevent these issues, administrators can choose to test patches before releasing them into the network," says Gibson. IT units run these tests using products such as WSUS (Windows Server Update Services), which is free; SMS (Systems Management Server); or SCCM (Systems Center Configuration Manager), which replaces SMS, Gibson explains. These products help IT to test patches and approve them for deployment.

Other Protective Measures

When you add more applications, you increase your area of vulnerability to attack, according to Robertson, so institute a policy that limits the programs users can install.

Exploits appear so frequently, it's hard to keep track of them. IT can get a lot of information about unidentified security issues with products by following Web sites and publications such as *Processor* that discuss them, according to Schouwenberg, who says, "This can heighten your sensitivity to new attacks and to whether you are at risk."

Why Patch?

Even if you are running critical financial systems, you need to patch and patch quickly, Roel Schouwenberg, senior antivirus researcher for Kaspersky Lab (www.kaspersky.com), explains.

"It is a matter of risk management," says Schouwenberg. IT has to weigh the cost of exposure to an attack against the cost of a potentially faulty patch, because the odds of being attacked by an exploit are rising above those of deploying faulty patches.

In some cases, as with Windows XP Service Pack 3, there may not be a critical reason to apply the patch immediately, Schouwenberg says. But, IT may find that leaving more critical vulnerabilities unpatched is more costly. IT should at least count the costs on a patch-by-patch basis.

Limit the enterprise's exposure to vulnerabilities by using a positive security model. Use security that doesn't let anything in unless it's known to be good, according to Montgomery. "Use Internet Reputation to see who is trying to connect to you before you let them in," says Montgomery.

Use intent-based analysis to check traffic. "Look at what a payload's intent is as it enters the network, before permitting entry," says Montgomery. If the download intends to call back to the Internet to a different site than it came from, for example, to download other files that may be spyware or other attacks, then you shouldn't let it in.

Pry The Window Open

Patching in time is no longer a satisfactory answer all on its own. Attackers are too well-informed and exploits are multiplying too fast for the current system of downloading patches to be sufficiently effective by itself. SMEs are all too often vulnerable to attacks no one is aware of until they strike.

A combination of patch testing using appropriate tools and patch management software can help to safely speed the patching process. By accelerating the patch process, limiting vulnerable applications, and using the most logical approaches to security, SMEs can maintain a balance of power against the onslaught of attacks. ▣

A Patching Alternative

For some small to midsized enterprises, expending the time and effort required to test and manage patches just isn't feasible. For those organizations, automatic updates may be enough to protect their systems from exploitation.

According to Darril Gibson, IT trainer and author of several Microsoft exam guides published by Wiley, SMEs without the means to test or manage patches can institute automatic software updates and forego patch management.

For some companies, it's not the cost of the solution alone, but the cost of person-hours. The hours needed to test every patch before deployment just aren't available, according to Gibson.

For example, one patch can take two person-hours to test on all the different software platforms a company uses, Gibson explains. Doing the math, it could cost IT 20 person-hours to test only 10 patches a month, or as many as 120 person-hours a year.

"Instead of spending the equivalent of three full weeks testing patches each year, some smaller companies choose to simply take their chances and have the updates deploy automatically with little administrative intervention or testing," Gibson says.

If any one patch should cause a problem, a few hours of troubleshooting that patch are less expensive than 120 hours of testing, Gibson concludes.

Green Initiatives: Hire A Consultant?

According to Mines, enhancing data center energy efficiency is currently the most active green service, but he expects efficiency improvement programs will spread to PCs and peripherals over time. He also expects new solutions involving procurement and recycling to get increasing attention, while green management software "that can integrate information from the growing collection of asset management, power management, virtualization, and workload management systems" and tie these into broader building management and energy reporting solutions "will be a growth frontier."

Green Growth

Enterprises are undeniably becoming more environmentally aware, yet there are sound business benefits to green initiatives. Given IT's voracious power demands and its role in equipment procurement and disposal, the greening of IT is a trend that will become more prominent over the next few years. "Some IT shops are responding by seeking help from professional services providers that assess, plan, and implement green initiatives for procurement, operation, and disposal of IT assets and processes," says Mines, and although the green IT industry is still in an embryonic stage, IT managers should be able to tap into an increasing amount of green expertise in the coming years. ▣

Data Storage & Security

Sentio HD 8000 Series Helps IT Personnel Face The Challenge

AS YOUR ORGANIZATION grows, so does the need for data storage and security, which is a challenge network administrators and IT managers face daily. To help network administrators deal with this issue, Revinetix has released the Sentio HD 8000 Series.

The Sentio HD 8000 Series features two models: the Sentio HD 8 - 26250 and the Sentio HD8 - 35000. Both use an 8U high-density, rack-mountable chassis. The Sentio HD 8 - 26250 includes a 26.25TB capacity license with 40 750GB ES (enterprise storage) SATA hard drives and 30TB of raw capacity. With a 35TB capacity license, the Sentio HD8 - 35000 offers 40 1TB ES SATA hard drives and 40TB of raw capacity.

RevOS admin software comes prebundled with both devices in the Sentio HD 8000 Series, and all major operating systems are supported by the software. The RevOS admin software provides users with automated backups all the way to desktop level for every machine connected to a network, including those connected to a VPN. Incremental backup levels are supported by the Sentio HD 8000 Series, as is client-side compression in order to capitalize on the available storage capacity. Additionally, RevOS has a running catalog database of all files saved on the backup appliance.

Xeon processors, Gigabit and Fast Ethernet controllers, dual-redundant power supplies, high-speed SATA drives, and RAID 5 technology are also included with both Sentio HD 8000 Series devices.

Revinetix Sentio HD 8000 Series

Sentio HD 8 - 26250: $129,995
Sentio HD8 - 35000: $149,995

Large-capacity appliances designed to fulfill the total data backup and protection needs of SMEs

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TOTAL DISK BACKUP

Encryption: Advantages vs. Drawbacks

To Encrypt Or Not To Encrypt

by Sixto Ortiz Jr.

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EVEN THOUGH IT MAKES lots of sense, implementing encryption in the enterprise has its drawbacks, including complexity, cost, lack of scalability, and lack of interoperability with VoIP systems. So even though implementing encryption is appealing, many businesses may balk at the potential obstacles.

Enterprises must take the time to look carefully at encryption's advantages and drawbacks before implementation. Only then will decision makers be able to

of data via various transmission means, such as email. Kevin Kennedy, product manager for IronPort (www.ironport .com), says companies should keep in mind that standard email is not secure and is in fact tantamount to writing sensitive information on postcards that are sent via the mail.

By using encryption, enterprises not only guarantee the confidentiality of information but may also meet the requirements of regulations such as HIPAA, GLBA, or Sarbox that require the implementation of measures to keep sensitive data secure, says Kennedy.

"I equate encryption with confidentiality," says Scott Palmquist, senior vice president of product management at

Randy Kerns, chief technology officer at ProStor Systems (www.prostorsystems .com), says the most advantageous security addition with encryption is its use with removable storage.

"Removable storage, by its very nature, can leave the premises and the control of a company and be compromised. Encrypting this information is an excellent insurance policy and is mandated for some types of information based on regulations," says Kerns.

So, using encryption comes with numerous advantages to enterprises that need to protect both data at rest and data in flight. At the end of the day, however, the advantages behind encryption all boil down to one simple fact: It's protecting data from prying eyes, even when systems such as storage devices or networks are compromised. It's the last line of defense.

Encryption Drawbacks

One thing about encryption is certain: It is a very complex technology. Just a cursory look at the intricacies behind encryption algorithms and keys is all that's needed to rapidly understand that this is about as close to rocket science as technology can get.

For example, take encryption keys. One of the main drawbacks of encryption, says ProStor Systems' Kerns, is the fact that management of encryption keys must be an added administrative task for often overburdened IT staff. In fact, adds BT's Schneier, one big disadvantage of encryption as it relates to keys is that the security of data becomes the security of the encryption key.

"Lose that key, and you effectively lose your data," says Schneier.

Also, says CipherOptics' Palmquist, encrypting data and creating the keys necessary to encrypt and decrypt the data is computationally expensive. No matter what type of encryption is used, the systems performing the computational heavy lifting must have available resources, he adds.

Hay Hazama, vice president of research and development at Safend (www.safend .com), says one of the common drawbacks of traditional full-disk encryption solutions is the reduction of overall system performance upon deployment.

"In fact," says Hazama, "analysis shows that the data access time increases

significantly after full-disk encryption implementation." These performance hits can be mitigated, adds Hazama, by avoiding the encryption of operating system files, application files, and the empty space on a hard drive, none of which affects data file security.

Adopters should not set the expectation that data encryption is a panacea for mobile security threats, says Jonathan Dale, product manager at Fiberlink Communications (www.fiberlink.com).

"It is important," says Dale, "to understand some of the limitations of data encryption technologies so that you don't set unrealistic objectives." For example, he adds, data encryption does not prevent employees from emailing sensitive data to outside parties or from signing on to laptops and then walking away. And encryption won't prevent a hacker, virus, or file-sharing program from opening and transferring a sensitive file, he adds.

A key pitfall administrators should be wary of is that a poor encryption implementation could result in a false sense of security, when in fact the enterprise is wide open to attack, says Robert Moskowitz, senior technical director at ICSA Labs (www.icsalabs.com).

"Encryption may add a procedural burden to employees that they diligently work around, leaving the enterprise wide open to the consequences," adds Moskowitz.

Another challenge is the difficulty of layering encryption onto existing applications and data stores, says David Thompson, senior product manager at Voltage (www.voltage.com). In fact, he says, administrators often struggle after an encryption implementation with preventing unwanted impacts on operational activities.

And, adds Thompson, organizations also have to grapple with the burden that comes with managing the encryption keys required to secure data. As far as keys are concerned, data-at-rest applications require keys to be kept for long periods of time, so key storage is an important issue, says CipherOptics' Palmquist. Data-in-motion keys, on the other hand, are transitory and only need to be retained for the duration of the packet transmission.

"In either case, data at rest or data in motion, the keys can never become compromised," he warns.
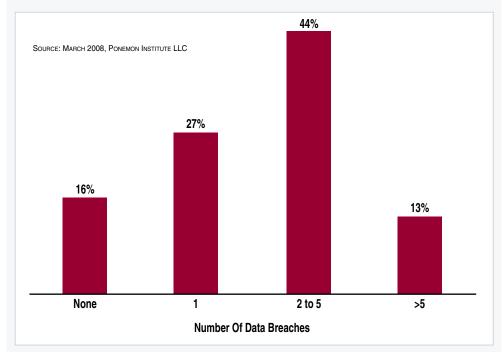
Plan Your Strategy Wisely

Careful planning is the key to a successful implementation of enterprise-wide encryption. Without it, the innate complexity of the technology can quickly become unmanageable for administrators and difficult to use for end users. Transparency is critical to implementing encryption successfully and delivering peace of mind for managers, administrators, and employees who depend on well-protected data. ▣

Respondents Reporting The Number Of Breaches That Occurred In Their Organizations

Data from a Ponemon Institute survey reveals that during the past year, 57% of all responding organizations suffered two or more data

breaches, and 13% of the organizations surveyed suffered more than five data breaches during the year.

SOURCE: MARCH 2008, PONEMON INSTITUTE LLC

Bar chart — Number Of Data Breaches: None 16%, 1 27%, 2 to 5 44%, >5 13%

judiciously consider the alternatives and make a sound business decision.

Encryption Advantages
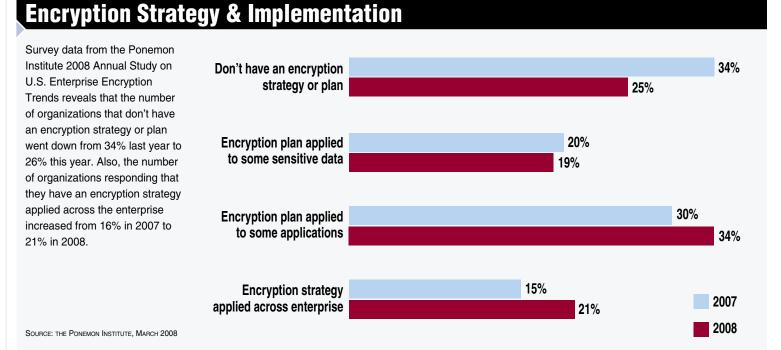
One advantage to encryption is that it separates the security of data from the security of the device where the data resides or the medium through which data is transmitted, says Bruce Schneier, chief security technology officer at BT (British Telecom; www.bt.com). When data itself is encrypted, adds Schneier, it allows administrators to use unsecured means to store and transport data, since security is encompassed in the encryption.

Other key advantages to implementing encryption include the elimination of the pain that comes with data breach disclosures, the provision of strong protection for intellectual property, and the fulfillment of myriad regulatory compliance requirements, says Gretchen Hellman, senior director of marketing for Vormetric (www.vormetric.com).

"Encrypting of sensitive information is an important component of any defense-indepth model because it places security measures directly on the data itself," says Hellman. In other words, no matter where encrypted data travels, it is always secure because the encryption travels with it.

Beyond encrypting data at rest, businesses must also consider the transmission

CipherOptics (www.cipheroptics.com). According to Palmquist, encrypted data that can only be read by a system or user who has the key to unencrypt the data means the system or user is authorized to read the data. And, he adds, encrypted data cannot be accessed by third parties, who only see random strings of bits when they intercept data packets.

Encryption Strategy & Implementation

Survey data from the Ponemon Institute 2008 Annual Study on U.S. Enterprise Encryption Trends reveals that the number of organizations that don't have an encryption strategy or plan went down from 34% last year to 26% this year. Also, the number of organizations responding that they have an encryption strategy applied across the enterprise increased from 16% in 2007 to 21% in 2008.

SOURCE: THE PONEMON INSTITUTE, MARCH 2008

Bar chart comparing 2007 and 2008:
- Don't have an encryption strategy or plan: 2007 34%, 2008 25%
- Encryption plan applied to some sensitive data: 2007 20%, 2008 19%
- Encryption plan applied to some applications: 2007 30%, 2008 34%
- Encryption strategy applied across enterprise: 2007 15%, 2008 21%

SIX QUICK TIPS

Boosting Your SME's Help Desk Skills

Techniques To Improve Problem Resolution Rates

by Christian Perry

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WHEN IT COMES TO IT help desk environments, there is always room for improvement. One of the most direct paths to improvement is improving the skills of help desk personnel, but for many companies, simply increasing training and education isn't always effective—or affordable. The good news is that there are plenty of other methods for boosting help desk skills.

The Key Is In ID

According to John Migliazza, national practice director of technology support services for Technisource (www.technisource.com), boosting help desk skills relies heavily on an organization's ability to first identify what skills are needed to support the IT environment and what skills will be required for future growth.

"For example, you can start with setting performance goals based on customer service or first-call resolution," Migliazza says. "Once you set goals, identify what skills are necessary or important to achieve those goals and then identify the gaps. This skills gap analysis will give you a training roadmap for improving overall individual performance."

Once those gaps are identified, training can be targeted around those resources to fill in the gaps, he says. This focused training around gaps not only boosts the effectiveness of the help desk but also empowers the help desk staff to learn skills that are tied to the organization's growth.

"Imagine the impact of improving skills of one-fourth, half, or even all of your staff and directly tying it to improving the resolution rate of the help desk," Migliazza says.

Virtual Lock For Success

Junior support representatives can learn plenty from senior reps, but an architecture for efficient collaboration doesn't exist in all help desk environments. Nathan McNeil, vice president of product strategy for Bomgar (www.bomgar.com), explains that virtualizing the support organization can enable this scenario.

"You can then have different groups get virtual access to the same system," McNeil says. "This means that the senior rep can look over the shoulder of the junior rep and coach the rep toward a resolution. The junior rep gets the experience of resolving the incident while having the senior rep as a safety net."

McNeil adds that virtual access can also boost help desk skill levels when used in other areas, as well. For example, when representatives are able to troubleshoot complex incidents using virtual access to a user's desktop, they can absorb more in-depth understanding of the problem in action, in turn helping them resolve future incidents more efficiently.

Meet & Greet

Amid the daily hustle and bustle of the help desk, communication between help desk personnel can come at a premium. However, according to Vaughan Butts, CIO for Washington, D.C.,-based law firm Sterne, Kessler, Goldstein, and Fox, weekly help desk meetings can allow staff to focus on customer service techniques and resolution to key issues.

"These meetings [can] focus on a topic that is selected due to an impending upgrade and/or based on call volume. Our help desk staff is periodically tasked with presenting the selected topics to the group during these meetings. These sessions promote teamwork because all staff participate in these sessions, as well as enable staff to thoroughly understand the topic presented. During these sessions, questions and comments are solicited and encouraged from the staff," Butts explains.

Partner With Support Groups

The IT help desk landscape is vast, encompassing skills that stretch across every possible industry and discipline. But even within single enterprises, there are often multiple support groups, and Technisource's Migliazza notes that partnering with other support groups to cross-train staff is a great way to improve skills.

"Help desk folks love an opportunity to work in more advanced environments. The experience will fine-tune advanced skills that they can bring back to their Level I or Level II environment. This cross-training is also a great way to give more advanced technicians an opportunity to hone their staff management and mentoring skills by working closely with less-experienced staff that are eager and willing to learn more," Migliazza says.

One option, Migliazza notes, is to have "lunch and learn" sessions with other support or business groups. For example, once a month, a help desk group could invite a senior member of another support or business group in the company to discuss a typical day and the skills necessary to excel in that environment. He says, "Your team will appreciate the free lunch and gain greater insight into other environments within your organization." ▣

BONUS TIPS

■ **Document detail.** Although help desk staffers might have different philosophies when it comes to addressing IT problems, the most efficient help desks rely on consistency. Robert Rosen, CIO with the National Institute of Arthritis and Musculoskeletal and Skin Diseases and immediate past president of SHARE, explains that all procedures should be documented so that every help desk technician follows the same blueprint. "The quickest way to customer dissatisfaction is for a tech to say, 'I don't know why Joe did that—I think we should do this.' If you standardize procedures, you eliminate that. Not to mention, [you] transfer knowledge," Rosen says.

■ **Knowledge at arm's length.** Vaughan Butts, CIO for law firm Sterne, Kessler, Goldstein, and Fox, notes that the skill level of help desk personnel can be boosted through the implementation of Help Desk Technical Information Documents, which can provide overviews or even detailed explanations of issues and resolutions. "This is an innovative concept that is quick and easy to implement and provides immediate payback because it allows staff to easily locate technical documents providing resolutions categorized by application," Butts says. "These documents are made available via an online searchable knowledgebase for help desk staff."

WHAT'S HAPPENING

Rackmount Solutions Puts Quality First

ISO 9001:2000 Certification Helps To Ensure Quality Manufacturing & Delivery

by Drew Robb

• • •

WHEN BUDGETS WERE SWOLLEN in the late '90s, quality grew in popularity. But following the high-tech crash, it was all about cutbacks, prioritizing IT spending, and doing more with less. Unfortunately, it's often too easy to put quality on the back burner when focusing on cutting costs.

In light of today's tight budgets, it's interesting to hear about a fairly new company that is putting quality first. Formed in December 2001, Rackmount Solutions (972/272-6631; www.rackmountsolutions.net) is not only an ISO 9001:2000-certified company, it has also been awarded two GSA (General Services Administration) contracts based on its high customer satisfaction ratings and top-notch reliability.

"Our mission is to listen to the IT engineer's specific needs and deliver superb-quality, high-performance products through continuous innovation and operational excellence," says Rudy Rangel, a sales manager at Rackmount Solutions. "As a result, we take pride in supplying products that meet or exceed the quality and reliability requirements of each and every one of our customers."

The company develops, manufactures, and sources a wide range of rack-based products, including server racks and cabinets, wall-mount racks, network and LAN racks, portable rackmount cases, and NEBS (Network Equipment Building Systems)-compliant racks for earthquake zones. Racks are generally available in widths of 19, 23, 24, and 28 inches. In addition, Rackmount offers all the accessories that go with racks, such as shelves, keyboards, and a variety of cabling and cable management supplies.

"The company specializes in rackmount storage . . . straightforward server racks and wall-mount racks all the way up to NEBS-compliant Bellcore earthquake racks, air-conditioned racks, and customized racks," says Rangel. "Our earthquake racks, air-conditioned racks, enclosed or open wall-mount racks, [and] two-post and four-post racks are specifically targeted at organizations with between 250 and 1,000 employees."

If you don't need a fully enclosed server cabinet, Rackmount Solutions has three rack frame lines. Its four-post relay rack, for instance, is available in 24 and 42U versions and can be used for servers, KVM switches, and network equipment in environments where security at the rack level is not required. The double server rack, on the other hand, has all the familiar equipment-mounting features of standard two-post aluminum racks but is stronger and more durable and is best for extra-deep and/or heavier servers, hubs, routers, or power supplies, such as those used for telco equipment. The company also has a multivendor-compatible six-post server rack frame, in which Sun, Compaq, Dell, HP, IBM, and Intel gears can be enclosed due to six internal universal rails.

ISO Quality

The big news at Rackmount Solutions is its achievement of ISO certification. It can take years to fulfill the requirements of the ISO (International Organization for Standardization), the world's largest developer and publisher of international standards.

Rackmount Solutions completed ISO 9001:2000 certification this year. This rigorous standard specifies requirements for a quality management system wherein an organization needs to demonstrate its ability to consistently provide product that meets customer and applicable regulatory require-

RACKMOUNT SOLUTIONS, Ltd
where customer service matters

ments. In addition, it aims to enhance customer satisfaction through the effective application of the system, including processes for continual improvement of the system and the assurance of conformity to customer and applicable regulatory requirements.

"We are committed to providing products and service that meets or exceeds the quality and reliability requirements of our customers," says Rangel. "We will continually set, monitor, and improve our quality management system goals that meet or exceed the changing requirements of our customers, both internal and external."

In addition to ISO certification, the company has invested time into satisfying GSA demands. The GSA puts all applications through a rigorous and exacting qualification process. Under the GSA Schedules (also referred to as Multiple Award Schedules and Federal Supply Schedules) Program, the GSA establishes long-term government-wide contracts with commercial firms. In its few short years of conducting business, Rackmount Solutions' racks have already qualified for two GSA long-term contracts, which means the company's products and business practices qualify it as a trusted supplier to government entities.

The GSA sends in a third-party verification company before accepting a vendor. Rackmount scored a 94% customer satisfaction rating, as well as fulfilled requirements for financial, reliability, cost, order accuracy, timeliness of delivery, support, and responsiveness.

Moving Forward

Where is the company going from here? In addition to continuing with its focus on quality, it has decided to provide a more turnkey type of business. Rangel explains that rather than supplying some items, Rackmount Solutions wants to become the port of call for a new data center by being able to supply everything it needs to launch successfully.

"If you have a data center that is in the infant stages, we would like to provide the entire supplies for the job," he says. "This would encompass bulk cable in the walls, jacks, wall plates, patch panels, patch cables, switches, power supplies, UPS backups, LCD monitors, KVMs, and obviously any rack required for the job."

Beyond that, Rackmount Solutions will be coming out with new products. "We are working on our cable solutions, both bulk and custom lengths," says Rangel. "This includes network cables and custom fiber of any length." ■

THREE QUESTIONS

Efficient Use Of Space & Power

Information Support Concepts Offers Solutions For A Variety Of Configurations

by Don Reisinger

FOUNDED IN 1987, Information Support Concepts (817/649-1788; www.iscdfw.com) is a leading retailer that supplies a slew of products to IT managers all over the world, including server racks and cabinets, KVM switches, patch panels, and more. It markets product solutions nationally and internationally for networking, telecom, corporate training rooms, and school computer classrooms and works hard to recognize and meet the needs of the ever-evolving computer and data center markets.

In addition to its offerings, ISC prides itself on its ability to offer products at a competitive price while maintaining strong customer relations.

To discuss the company, *Processor* spoke with Kevin Hunt, ISC's vice president of sales and marketing.

■ **What are the biggest IT-related issues facing today's small to midsized enterprise?**

Hunt: I think the biggest challenges facing SMEs today are all involved in maximizing efficiency. More than anything, they need to answer this series of questions:

1. Is the cooling for the IT equipment sufficient for the heat load? Is the warm air being redirected back to the air-conditioner intake? What happens if the air conditioning fails or the power for the air conditioning fails? If fans are in use, are they temperature-controlled to save energy and extend fan life?
2. Is the power being brought to the IT equipment appropriately apportioned? Is there enough power to ensure the machines are running properly? Is there sufficient backup power in the form of a UPS or generator? What procedures are in place should the power fail when the office is closed? Who will be notified, and how?
3. What kind of security systems are in place to protect your proprietary information or your customers' account information? What are you doing to keep from being hacked? Is your system cost-effective for the risk involved?
4. Is virtualization in use? How efficiently are the machines handling the load of the various applications? Is it cost-effective to use fewer larger servers or many smaller machines?

■ **What should *Processor* readers know about your company's products?**

Hunt: About 85% of ISC products cater to those who are using hardware that is rack-mountable. Since hardware is made in so many different sizes and heat variances, ISC offers a full line of racking, from 2-post, 4-post, and enclosed server rack cabinets, to meet the applications of any hardware on the market. We also provide most any type of rackmount accessory a customer may need. Power, UPS, KVM switches, and rackmount monitor keyboards in varying configurations are very popular items today.

There are also a lot of applications that involve free-standing hardware rather than rackmount. ISC offers many standard configurations and is in the process of adding more products for customers who have these functions.

In the next few months, ISC will be offering cooling and support products that network managers are tasked with buying.

■ **What makes your company unique?**

Hunt: ISC is interested in custom applications customers may have. We have the resources to find solutions for challenges faced by our customers. We feature our 800 number on every page of our Web site to make it easy to contact us for questions.

We also have a 'Customer Bill of Rights' that defines our pledge to the customer, [which outlines the following]:

ISC customers have the right to quality products; online [ordering] 24/7 with a credit card or purchase order; [a] prominently displayed 800 number and email contact on each catalog page for questions or comments; [quick connection] to a knowledgeable sales person or customer service representative; [access] to our product manager [to talk] about custom or difficult applications; fair pricing; and timely shipping.

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Barracuda Load Balancer

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- Internet sites with high traffic requirements
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PHYSICAL INFRASTRUCTURE
APRIL 25, 2008

Managing IT Over IP

ServReach Product Line Offers KVM Over IP Networks

THERE IS NO DOUBT that managing servers is crucial to a business' success. Being able to access and manage your machines from anywhere, any time over IP would be a huge boost to the ability of managers to monitor and take care of systems. Black Box has put the power of IP functionality into the hands of IT managers with the ServReach family of KVM over IP switches. The family includes KVMCube, KVMGate, KVMultiport, and KVManager.

KVMCube is a palm-sized KVM device that, in addition to providing full BIOS access, allows users to install or recover applications or OS patches without being physically present. With virtual media support, users can move files from a remote device to a computer in the data center.

KVMGate is a device that adds IP functionality to previously installed KVM switches that don't have it, extending full KVM access to users. The device features 128-bit SSL encryption and username and password configuration. No software installation is required for KVMGate, making it simple to implement. Utilizing the KVMultiport, users can access up to 16 target servers. KVMultiport also enables users to work with servers that are places up to 100 feet from the switch.

Each of the ServReach switches can operate as a stand alone device or they can be optionally managed by the KVManager, which unifies IP-enabled switches across the network and alleviates the confusion of manual management. The interface is designed to be intuitive and logical, yet also secure courtesy of its LDAP-based security system.

Black Box ServReach
KVM Over IP Switches

KVMultiport: $1,499.95; KVMCube: $499.95; KVMGate: $699.95; KVManager: Starts at $5,899.95

IP-based KVM switches that allow users to access and manage machines from anywhere

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APRIL 25, 2008

Wi-Fi & 3G Combined

iPassConnect Gives Users A Choice

WHEN MAKING A DECISION between using a 3G network or a Wi-Fi hotspot, the choice is not always clear. Some Wi-Fi hotspots have to be paid for while others are unreliable, at best. 3G networks only have good reception in areas where cell phone coverage is available.

The iPassConnect mobility service was created to bridge the gap between these two networks and give the user a choice between all available wireless sources. It also allows for wired hotel broadband and global dial-up.

iPassConnect will work on any laptop running Windows 2000 or newer and is designed with a user-friendly interface. There will also be a version for handhelds that will run on Windows Mobile.

iPass has a nationwide 3G network that can give the user up to 1.4Mbps data rates and near-broadband Internet speeds. A global dial-up network allows local modems to call to more than 160 countries.

Signing up for iPassConnect is easy: Visit the company Web site and sign up for the plan you want, then you'll receive a plug-and-play preconfigured 3G card that lets you connect to the network.

iPass has taken 3G and Wi-Fi networks and combined them into one service that only requires one monthly fee. With more than 95,000 business-friendly locations, including more than 20,000 hotels and 1,000 hotspots in more than 500 airports, the iPassConnect can help any on-the-road worker stay connected and remain efficient.

iPassConnect lets the user choose between multiple Wi-Fi hotspots and 3G.

iPassConnect

Plans starting at $29.95 a month

Software and 3G card for plug-and-play installation and networking choices

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iPass

STORAGE
APRIL 25, 2008

Just The Right Size

Future-Proof Your Archival Storage System With The Spectra Logic Spectra T200

WHEN IT COMES TO archival storage capacity, the only certainty is the need for expansion. Unless you're grossly overprovisioning your data center's storage requirements now, you can pretty much count on having to scale up your capacity every few years as your business grows.

The Spectra T200 is the latest tape library in Spectra Logic's T-series. It's a 20U rack-mountable system with two high-performance LTO-4 tape drives and 50 tape slots (80TB). It's expandable to a total of 200 slots (320TB) and eight full-height or 16 half-height drives, plus up to 40TB of optional hard disk-based VTL storage. But this level of scalability is only the beginning.

Because the T200 is equipped with the company's TranScale feature, administrators can migrate the storage system's components to a larger chassis (such as the T380, T680, and T950) as needed. Spectra Logic says that TranScale chassis migration provides much better reliability than traditional stacking module or pass-through expansion schemes. TranScale allows the T200 tape library to grow from 50 slots to more than 10,000. In other words, the 80TB tape library can scale up to a whopping 16 petabytes. There's even an available Assisted Self-Maintenance option that provides users with an onsite complement of components to make migration easy.

Spectra Logic's BlueScale software manages the tape library's operation with an easy-to-use graphical user interface. BlueScale is the only such GUI library administration system that supports LTO-4 encryption key management, the company says.

Spectra Logic Spectra T200

Starts at $72,000

A 20U rack-mountable system with two LTO-4 tape drives and 50 tape slots, scalable to 200 slots

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MESSAGING & TELEPHONY
APRIL 25, 2008

Protect Telepresence Investments

Upgrade Your Monitoring Capabilities With Tandberg Management Suite

Track conference bookings and perform network administration tasks through the Web-based interface.

IT ADMINS need to maintain a reliable network environment. To help them do that, Tandberg has upgraded its TMS (Tandberg Management Suite) for telepresence and high-definition videoconferencing with enhanced diagnostics, monitoring, and scheduling options.

With total network visibility and centralized control, TMS offers end-to-end management for onsite and remote video systems. It uses a Web-based interface for scheduling, call launching, and accessing phone directories. Through this user-friendly navigation tool, admins can also monitor network statistics, organize booking, and perform software updates. Event notification alerts warn users of negative service levels before a problem occurs.

TMS can allocate and connect management resources. Users can easily plan video, audio, and Web conferences; the Conference Control Center allows for real-time schedule management.

TMS sustains multiple vendors to manage video networks and deployment. The new version features automatic upgrades for videoconferencing endpoints and infrastructure software and now supports Polycom HDX endpoints and Tandberg Codian Multipoint Control Units. It continues to support Sony, Radvision, Cisco, Aethra, VTel, and Polycom product lines. TMS also integrates with collaboration tools.

Tandberg Management Suite

The TMS Server appliance starts at $13,900, with preinstalled Tandberg Management Suite and Scheduler; a free 30-day trial version is also available

Video management platform that provides centralized management, diagnostics, monitoring, and scheduling options for videoconferencing networks

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TANDBERG

Solving Virtualization's Pitfalls

Keeping Performance and Reliability on Your Virtual Machines

Virtualization has enormous potential to save companies money, time and space. However, like any innovation, there are bound to be a few snags and snares that prevent you from maintaining optimum performance and reliability. While virtualization promises efficiencies, it hardly guarantees performance. The anticipated evolution to large scale virtualization can only be made effective by understanding and seamlessly integrating this technology into the network. Success also hinges on the resolution of any reliability-threatening problems, like fragmentation, that will spring up.

Fragmentation 101

Fragmentation is a performance-crippling phenomenon. And, if left unchecked, it can lead to hangs, bottlenecks, freezes, crashes and total system failures.

Disk fragmentation occurs when individual files are not stored in contiguous segments. To fit space restrictions, files are broken up and scattered around the hard disk. So the file system, whether in a virtual machine or not, has to generate more I/Os to address the excessive file fragments.

Pinpointing the Problem

Without a doubt, the more I/Os generated (and multiple virtual machines only exacerbate this), the more through-put you'll need to account for in storage subsystems. Even with expansive, fully optimized SAN or RAID implementations underlying those virtual machines, poor disk performance is still regularly traced back to fragmentation.

Virtualization pundits have been cautioning for some time about the major performance hit a host operating system takes from fragmentation. Fragmentation's side effects include I/O bottlenecks and the inefficient use of resources. These are two major pitfalls along the path towards virtualization. They limit the performance and reliability of virtual machines. And server virtualization actually compounds fragmentation. A fragmented virtual disk, in the same storage system as another fragmented virtual disk all on top of a fragmented logical disk, significantly increases the amount and severity of fragmentation's symptoms for the entire architecture.

A misguided and somewhat instinctual response to fragmentation is to add more and more hardware (more hard drives, faster controllers) to fight off its effects. But this only mitigates the problem, and never solves it.

Solving Fragmentation

Diskeeper® 2008 with InvisiTasking™ technology automatically solves fragmentation in real time with absolutely zero overhead. Management and downtime are things of the past. The breakthrough of InvisiTasking allows for defragmentation to be a completely transparent background process. Only untapped resources are used, so applications are never interrupted. Having Diskeeper running on your virtual machines eliminates I/O bottlenecks and ensures resources are used more efficiently.

Combining virtualization's economical resource use with Diskeeper's transparent system enhancements leads to maximum productivity. Diskeeper will purge your system of performance-wrecking fragmentation. Your systems, virtualized or not, will run with unparalleled performance and superior resource efficiency.

The move to virtualization saves money and strategically allocates resources. Putting Diskeeper 2008 on your volumes is vital for a problem-free virtual infrastructure.

See for yourself, download and try Diskeeper 2008 free for 45 days at **www.diskeeper.com/vm**.

Note: This special 45-day trialware is only available at www.diskeeper.com/vm.

Primary Storage Data Compression

The Storwize STN-6000 P Series Maximizes Storage Space

OPTIMIZATION used to be the elephant in the room. Now, it is a growing concern that is being addressed by every company looking to manage their costs, efficiency, and performance. Storwize has improved on their STN-6000 series of compression appliances and introduced the new P Series.

The P Series is comprised of three different models that are designed for various business environments. The STN-6300p is considered the entry-level model but is just as efficient and reliable as its higher-end counterparts. The STN-6500p is a perfect fit for environments in the enterprise. Enterprises that perform large amounts of processing with even larger volumes of files may want to look into the STN-6800p, which is the high-end offering from Storwize. Each model can also be upgraded to a High Availability configuration, if desired.

Storwize has designed the P Series to increase the data center lifecycle. One of the most important things about the STN-6000ps is that there is no internal hard-drive and there is no user data on the appliance itself. Also, the P Series is invisible to storage applications.

The compatibility of the P Series is another defining feature. The different models will work with Microsoft CIFS, NTP, ARP, and multiple other protocols. They are also designed to work with ORACLE and MS/SQL databases.

Storwize has multiple host-based utilities that work hand-in-hand with the P Series. The Storwize PrediSave predictive tool, Storwize Compression Accelerator, and Storwize Revert are all added solutions that improve the overall effectiveness of the system.

Storwize STN-6000 P Series

Addresses problems that are associated with optimizing storage and improving overall efficiency

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Quick & Easy Testing

Carry The PatchTest For Simplified Ethernet Patch Cable Testing

IT'S NOT UNCOMMON to see several tangled up cords weaved around an employee's desk. These wires can be various shapes and sizes, or they can all look exactly alike. Sorting through webs of cables in order to discover bad or unidentified cables can be a tedious, frustrating job. To help make the job of testing Ethernet patch cables quicker and easier, Smartronix has introduced the Patch Test. This is a battery-powered tool that tests the continuity and common wiring standards such as Gigabit Ethernet, Fast Ethernet, and fast Ethernet Crossover.

The PatchTest is also fully compatible with the Smartronix line of SuperLoopers, which are a blend of an Ethernet jack and plug. SuperLoopers are used for loopback testing and to change standard Ethernet cable to a crossover cable. SuperLoopers and the PatchTest tools are to be used when remote testing longer cables whose ends are not colocated.

The Smartronix PatchTest will signify a Giabit Ethernet Straight Through, 10/100Mb Fast Ethernet Straight Through, 10/100Mb Fast Ethernet Crossover, and a bad or unidentified cable via LED lights. Made from RJ-45 cable connectors and molded ABS plastic housing, the PatchTest comes with a keychain attachment to make it a convenient tool for network technicians and IT personnel to carry around at all times. Its dimensions are 2.5 x 1.5 x 0.75 inches, and it weighs just 1.16 ounces.

Smartronix PatchTest

$44.95

Simplifies the testing of Ethernet patch cables for continuity and common wiring standards such as Gigabit Ethernet, Fast Ethernet, and fast Ethernet Crossover

(866) 442-7767

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